ARCHITECTURAL RECORD

HOSPITALS 220

MARCH 1955



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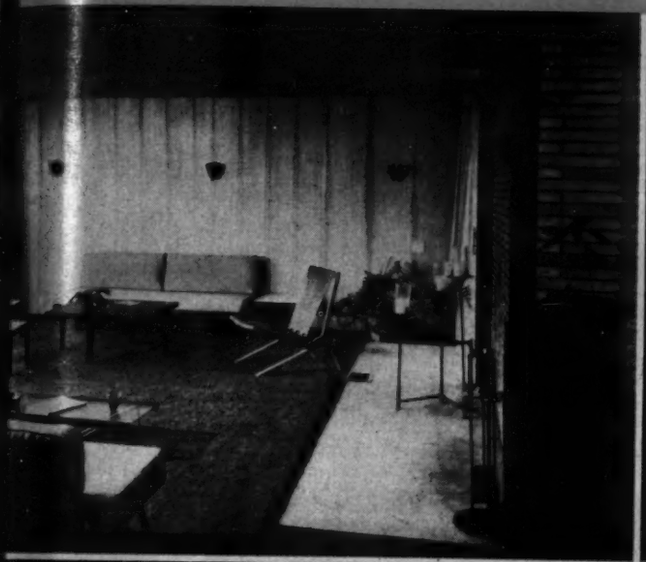
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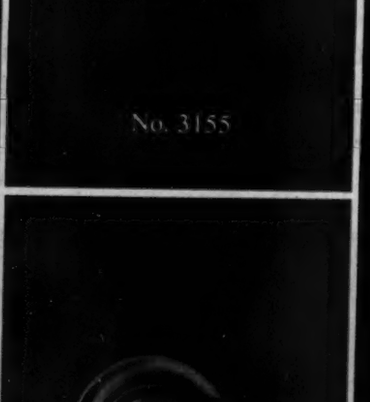
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March 1955 Vol. 117 No. 3

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In its 86-year history the Mellon Bank has had several occasions to solve architectural problems. The latest was by no means the simplest problem, for the bank expanded from its present building (vintage 1924) into the new U. S. Steel Building adjoining. How to develop the joint property produced an interesting solution; then of course there was the problem of modernizing the old building without sweeping out its identity, of joining it both to the past and the present.

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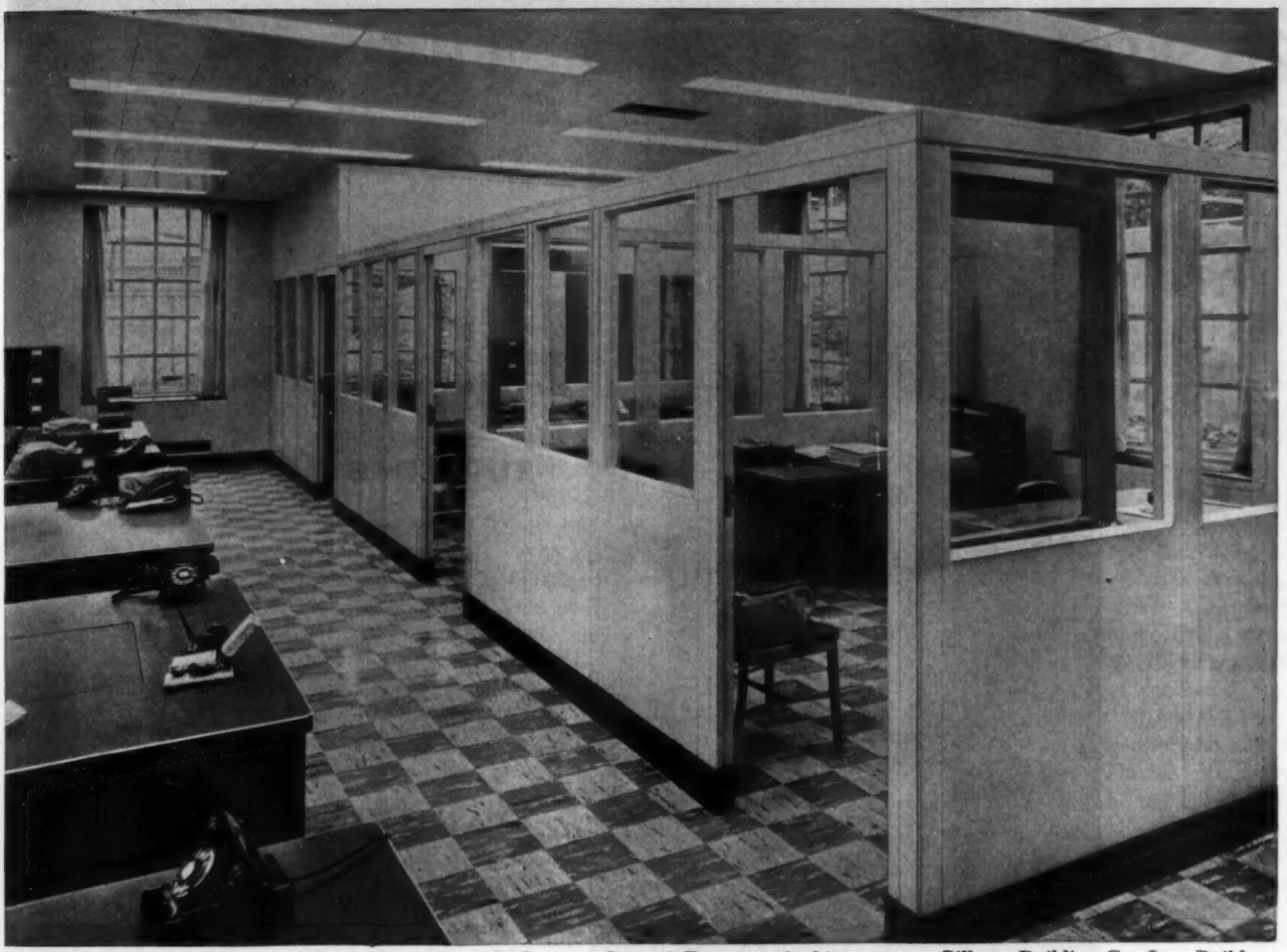
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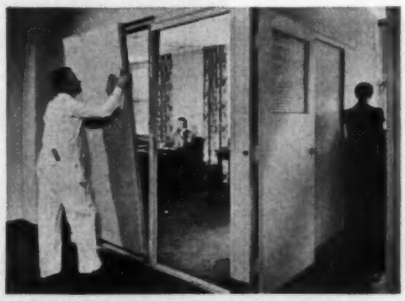
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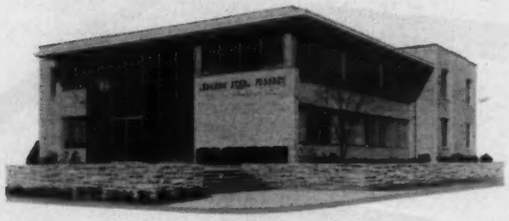




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THE RECORD REPORTS

PERSPECTIVES

LATEST WORD FROM FREE CHINA to this office arrived not long before Formosa became the most important island in the world. It was in the form of another communication from the editors of *Architecture-Today:* the architectural students at the Taiwan College of Engineering who started a bimonthly magazine a year or so ago "as we do feel the lack of a magazine on architecture written in Chinese on this island." The editors offered their congratulations to the RECORD on its success in last year's A.I.A. journalism competition and their thanks "for appealing our association to the world in your April issue," asked if they could have tear sheets of Lewis Mumford's November 1951 article, "Function and Expression in Architecture," and enclosed the two latest issues of *their* magazine. These are 7½ x 10½-in. pamphlets of 60 pages or so which range the architectural world for their subject-matter and owe a good deal to all of the American architectural magazines for their material (largely reproduced therefrom). The work of LeCorbusier is a major feature of one issue (which has a photograph of Corbu on the cover) and the work of Frank Lloyd Wright of the other (with Falling Water for the cover). But each, to judge only from the illustrations, is a testimonial to architectural diversity. There is very little local material, and the editors apologize for this, and promise to make up for it in future issues: because "we know that you are interested in the architecture of the Far East and especially that of Free China." Especially Free China.

OTHER CLIENTS, OTHER PROBLEMS. Consider Willem Dudok, designing a small house at Hilversum for one Professor de Gruyter and his wife, the Princess Fatemah Khanoum of Persia (as described in a recent issue of the *Journal* of the Royal Institute of British Architects). "Though planned for a household of three or four persons," the *Journal* reports gravely, "it had to be designed for the occasional entertaining of royalty and to house the professor's library of 3000 volumes." . . . Or, *much* closer to home, suppose you had to incorporate the grand staircase of the American Embassy in Luxembourg into the plans for remodeling a Pennsylvania Dutch farmhouse? Which, unless a "usually reliable" Washington source is all off, was what one lady client had in mind when the State Department got a rush call for a photograph of said staircase.

ARCHITECTURE AND COMMUNISM: The reputed prime mover behind the most recent Soviet upheaval and Stalin's successor as general secretary of the Communist Party's Central Committee has called for mass standardization of design and industrialization of building. In a recent speech before an all-union conference of builders in Moscow, as reported in *The New York Times*, Nikita S. Krushchev sharply criticized the waste he said was entailed in skyscraper construction and in "overelaborate" designs. Mr. Krushchev had a specific "suggestion" (read directive?) for better building: hold a competition of architects to produce standard plans for every type of building and then conduct a mass construction program for, say, five years, based on these plans; after that, reconsider the plans, and if no better ones turn up, use them for another five years. Asked Mr. Krushchev, according to the *Times* account: "Is there anything wrong with this, comrades?" It is not recorded that anyone shouted "Yes!"

PLANNING, U. S. A.: Four criteria to guide city planning decisions were suggested by Dean G. Holmes Perkins, F.A.I.A., of the University of Pennsylvania College of Fine Arts, in a recent speech before the Philadelphia Housing Association. First, "that the social values to the individual and the community shall, in case of conflict, outweigh any temporary financial advantage (and I am convinced that there is NO conflict between social values and long-term financial advantage). Secondly, the plan must foster family life with widely diverse opportunities for social activities, for gregariousness and for privacy. The plan which fails to give asylum to the individual is guilty of as grievous a shortcoming as that which neglects the public parks and playgrounds. The third of these criteria is the effectiveness of the scheme in promoting friendliness among neighbors; the fourth — recognition of the rightful dominance of the pedestrian within the social unit which centers on the smaller elementary school." But the first prerequisites of the new community, said Dean Perkins, are adaptability and variety: "Specifically, we must provide for constant change, for rising standards, and for new needs — therefore adaptability to change. But secondly, we must provide variety. For variety and contrast are essential if the individual is to have true freedom in its deepest sense — a choice of home, of work, of church, of school, of recreation. This freedom of choice is the essence of democratic planning."

HOUSE DESIGN is "too difficult" for "The Boys with the $5,000,000,000 Brains," as *The Saturday Evening Post* in a feature about them in its February 5 issue dubbed the redoubtable Detroit firm of Giffels & Vallet, Inc., L. Rossetti. Or, at any rate, so Vice President Edward X. Tuttle is quoted as saying, with flourishes: "The average home is a hotel, restaurant, factory, utility plant, and clubhouse all in one miniature package with a price limit on it. That's too tough." Just how difficult house design must be should be thoroughly apparent, for once, even to the most obtuse client, after *Post* author Arthur L. Baum is through describing the kind of thing that *is* simple enough for "GVR" — from automatic factories and atomic reactors to (once anyway) a doorknob.

a WASHINGTON *report by Ernest Mickel*

PRESIDENT EISENHOWER WOULD HELP COMMUNITIES TO

THE EAGERLY-AWAITED Presidential message on Federal aid to school construction went to Congress last month a week ahead of schedule — perhaps reflecting increasing pressure from public and Congressional sources for early action.

In sum, the President proposed a four-part "plan of Federal cooperation with the States" which envisages Federal expenditures of approximately $1.1 billion over the next three years for "a total of $7 billion put to work building badly needed new schools."

The whole message, and the proposals it contained, scrupulously recognized the historic preëminence of state and local responsibility in school matters. "Federal aid in a form that tends to lead to Federal control of our schools," the President wrote, "could cripple education for freedom. In no form can it ever approach the mighty effectiveness of an aroused people. But Federal leadership can stir America to action."

The President's proposals:

1. Federal authority to purchase school bonds issued by local communities which are handicapped in selling bonds at a reasonable interest rate. Recommended appropriation — $750 million for use over the next three years.

2. Federal participation with states in a "lease-purchase" scheme based on establishment of state school building agencies to construct schools and lease them to local school districts, which would "buy" its schools gradually in rentals paid over the years. "The local community under its lease gets a new school without borrowing," the message noted. Cost to the Federal government would be a contribution to the state school building agency's reserve fund; and the Federal share was estimated by the President's press secretary, James C. Hagerty, at about $150 million. The President's message did not ask for an appropriation at this point, however.

3. Federal grants-in-aid where need and lack of local income are clearly demonstrated. Federal and state matching funds would be sufficient to enable a school district to qualify under Proposals 1 or 2 for financing the remainder of the building costs. Said the President: "By authorizing this program of joint Federal-state aid to supplement the financing plans set forth in Proposals 1 and 2, a workable way will be provided for every community in the nation to construct classrooms for its children." Recommended appropriation —$200 million for three years.

4. Federal assistance for the states in carrying out such recommendations as will be made by the state conferences on education. The Federal government would furnish one half of the administrative costs of state programs designed to overcome obstacles to local financing or to provide additional state aid to local school districts. Recommended authorization — $20 million, with an appropriation of $5 million for the first year of a three year program.

A.I.A. GETS ARCHITECTS' VIEWS ON THE RECORD WITH CONGRESS AND U. S. OFFICE OF EDUCATION

THE AMERICAN INSTITUTE OF ARCHITECTS found two opportunities to register its views on the school problem — one through a meeting of its School Buildings Committee with officials of the U. S. Office of Education and the other in the testimony of the Committee's vice chairman, John W. McLeod, of Washington, D. C., before the Senate's Labor and Public Welfare Committee during the committee's hearings on emergency school-aid legislation.

Warn Against Standardization

The dangers of standardization that might arise in any Federal assistance program got the main emphasis in the A.I.A. statement delivered by Mr. McLeod. The A.I.A. urged that no Federal regulations be imposed more restrictive than those already existing in the several states.

"The establishment of standards designed to raise the level of schoolhouse planning, while desirable in themselves, inevitably tend to become outmoded and thereby increase construction costs and hamper educational development," Mr. McLeod warned. "Fixing of specific ceiling heights for classrooms and setting rigid requirements for the number of toilet fixtures per pupil are examples of the type of restrictive regulations which do not take into account the rapid changes and advances in technological and educational thinking."

Mr. McLeod stressed that changing educational concepts and continuing advancement in planning and construction techniques require "the widest latitude possible." Only in this way, he noted, can new materials and methods be turned to the advantage of the school district.

"Broad principles of purpose and performance, clearly stated and conscientiously followed, are more likely to produce better education and more adequate school buildings than the most detailed item-by-item outline of requirements and standards yet prepared," the legislators were told. "Determinations based on an accurate local knowledge of climate, local needs for specific educational programs and the availability of local labor and materials are more meaningful and apt to be less costly than standards initiated at the national level."

The A.I.A. statement took cognizance of the great need for school facilities, noting that almost every school an architect designs is overfilled by the time it is completed. The statement also recognized the necessity of outside aid to communities to enable them to provide adequate facilities.

But A.I.A. support was reserved for those measures before the Congress which leave to states the establishment of standards for the locating, planning and construction of schools.

Office of Education Briefed

The conference with officials of the School Housing Section of the Office of Education was a highlight of the January meeting of the A.I.A. School Buildings Committee, of which Henry L. Wright of Los Angeles is chairman. Present besides education specialists of the Department of Health, Education and Welfare and members of the committee were local school officials and a visiting foreign "team," and the occasion was made an opportunity for a careful exposition of the architect's contribution to the solution of contemporary school problems.

HELP THEMSELVES

Democrats, and some Republicans, and school people all over the country, immediately criticized the program on the ground that it did not go far enough. Most of the critics would prefer a program of outright Federal grants to states for school construction — such a program as outlined in the bill proposed by Senator Lister Hill (D-Ala.), which would authorize $500,000,000 in outright Federal grants for each of the next two years.

Early reaction from A.I.A. sources suggested members would have serious reservations about any proposals for school building authorities — state or Federal — as tending to imply, or at least to encourage, the development of strong controls over standards. As was indicated in A.I.A. testimony before the Hill committee (see across-page, below), the architects insist on local decisions on matters of standards as the only practical approach to the best and most economical schools.

There were three main topics of discussion: educational program effects on school architecture, relation of design to site and neighborhood and the current emphasis on the human factor — i.e., recognition of the fact that schools are designed for children. Some 40 slides were shown to illustrate current accomplishments of architects in school design. At one point, Dr. Ray Harmon of the Office of Education asked the meeting to note the absence of "belfries and towers" on the projects shown. "The architects have put the money into space and equipment," he remarked.

The committee showed increasing concern over "cheap" schools, which it said are creating an environment for cheap education. It also recognized that the scope of its concerns must be enlarged to encompass the growing problem of facilities for institutions of higher education; its emphasis up to now has been almost entirely on public elementary and secondary schools. Publication of future issues of the committee's "School Plant Studies" will be planned to reflect these considerations.

Future committee projects under consideration include studies on color, landscaping, food service, insurance, surety bonds and facilities for retarded children.

CONGRESS CONSIDERS SOLUTIONS ON ITS OWN AS HOPPERS ARE SHOWERED WITH SCHOOL AID BILLS

THE RISING TEMPERATURE of public concern with the school facilities problem was nowhere more clearly reflected than in the halls of Congress, where no fewer than 20 bills proposing various forms of Federal aid had been introduced within three weeks after the current session opened. The issue was, of course, very much in the political arena from the moment it became known the White House was ready to propose immediate action, abandoning its earlier insistence that any action on school aid should await the report from the White House Conference on Education scheduled for the end of this year.

The Senate had five bills to consider, including one proposed by Senator Lister W. Hill (D-Ala.), chairman of its Labor and Public Welfare Committee. In spite of Administration pleas to Congress to wait for the President's message, the Hill committee held three days of hearings on emergency school-aid legislation late in January. Chairman Hill, after prodding from his Republican colleagues, promised to give the White House proposals "respectful and careful consideration," but he would not promise to reopen the hearings.

A score of friendly witnesses, including the A.I.A.'s John W. McLeod (see across-page) appeared before the committee. The President's recommendations — though their details were a closely guarded secret — appeared during the hearings to be being "tried" before their arrival on Capitol Hill, not only by witnesses but by some members of the committee. Rarely had so much interest been evidenced in a Presidential message prior to its delivery.

In the House, fifteen bills on aid to school construction had been introduced and referred to committee, and more were to come. Most of the measures proposed "matching" funds. They fell into two general categories:

1. Those based on the so-called "Hill-Burton" approach. These would place allotment of Federal funds to states on a school population and per capita income basis, so that in its distribution the money would flow to poorer states in higher volume. Under this formula the proposed grants would range from $7 to $22 per school child.

2. Those which would make allotments to the states on the basis of school population only, with the provision that states match the money on a 50–50 basis. Under these proposals each state would get the same amount of money per child. Proponents justify this approach because of the "equalization" feature built into the tax structure. And it was being pointed out as well that one state may get much more for its construction dollars than another.

It is pretty generally agreed that no measure on straight Federal aid without matching fund provisions could be expected to succeed in the House. No such bill has been even able to get out of committee. At the same time, the House was expected to oppose any plan calling for insured-loan or direct-loan financing without direct Federal aid included. Some supporters of direct Federal aid, in fact, branded the loans-to-states approach as "delaying tactics," pointing out that 13 states would have to change their constitutions to raise their borrowing powers before they could take loans.

WHITE HOUSE CONFERENCE PLANNING CONTINUES

SIX MAJOR QUESTIONS have been selected for concentrated discussion at the White House Conference on Education — once the Administration's major tool for dealing with school problems — and two of them are concerned with school buildings, one with need and the other with financing. The conference will be held November 28–December 1 in Washington.

The six questions: (1) What should our schools accomplish? (2) In what ways can we organize our school systems more efficiently and economically? (3) What are our school building needs? (4) How can we get enough good teachers and keep them? (5) How can we finance our schools — build and operate them? (6) How can we obtain a continuing public interest in education?

By February 1, all but five of the 53 states and territories had taken some official action on conference plans, and six of the states had held their conferences.



MICHIGAN SCORES AN ATOMIC "FIRST"

THE UNIVERSITY OF MICHIGAN Research Reactor Facility, a vital part of the Phoenix Memorial Project, to be built on the North Campus in Ann Arbor, Michigan, will have the distinction of being the first civilian project to be licensed under the recently revised Atomic Energy Act. This project is the culmination of nearly a year's research and design by Smith, Hinchman & Grylls, the architects and engineers for the enclosing structure, and Babcock & Wilcox, designers and engineers for the nuclear reactor itself, working in close cooperation with the architectural and technical staffs of the University. Construction is expected to start early this year.

Outwardly, this building, housing the Nuclear Reactor, conforms in appearance with other school buildings on the campus. In contrast to the steel spheres which have been used on several similar governmental projects, this building will be constructed of reinforced concrete and brick veneer. Ordinary building materials have been used throughout.

The structure, however, is far from ordinary in its composition. It is windowless, gas-tight, and designed to afford complete protection to casual bystanders against escape of radiation or contaminated air from the building in the unlikely event of an operating failure.

In addition to the electrical and mechanical safety features incorporated into the reactor design, the building itself becomes a secondary line of defense. The 12-in.-thick outer concrete walls plus brick veneer offer sufficient shielding from radiation to meet any contingency. Upon a moment's notice all openings in the building to the out-of-doors "fail safe" and are automatically and tightly sealed. Even the construction joints in the outer concrete walls are specially designed to prevent seepage of air from the building. Where doors were required, they were designed to be gas-tight and normally closed.

The reactor itself is located under 25 ft of water contained in a concrete "swimming pool" structure rising up through three floors. Where maximum shielding is required, walls of the reactor pool have been made 6½ ft thick. To provide the required degree of shielding, even with such thicknesses, it was necessary to use "heavy concrete" — a concrete made of Barytes ore and weighing approximately 50 per cent more than ordinary concrete.

The extensive controls required for this facility are centered in a control room located on the third floor where visual control can also be given to operations at top of reactor pool and in the adjoining operating areas. Also on the third floor are laboratories and seminar rooms.

The administrative offices, fan room, and toilet rooms are located on the second floor.

Some of the structural problems encountered in the design of the building were out of the ordinary. Upper floors had to be designed to permit very heavy loadings. The lead "coffins," in which radioactive samples and materials are moved from place to place, and weigh as much as 10 tons, will be used on the third floor as well as the ground floor. At the same time, it was undesirable to obstruct operating areas by numerous columns. Accordingly, the main loads of the structure are carried on only two columns extending 60 ft to the roof. It was also deemed advisable, because of the unusual characteristics of Barytes concrete, to make the reactor pool structurally independent from the building. In the high bay of the building, a 10-ton crane will be installed to manipulate, through removable panels, the "coffins" and other heavy equipment which must be moved from floor to floor.

Adjacent to the crane bay, on the roof, but walled in for architectural appearance, are cooling towers. These are required to dissipate the very heavy but intermittent heat loads generated by the reactor. Louvres, seen on the upper portion of north wall of the high section of the building, identify tower location.

CONCRETE INDUSTRY BOARD GETS FULL-TIME MANAGER AND ARCHITECT DIRECTOR



Mike Elkins

Concrete Industry Board Chairman Roger H. Corbetta, Corbetta Construction Company president (center) with new director Wallace K. Harrison (left), representing the Architects Council of Greater New York, and C.I.B.'s first full-time managing director, Vice Admiral John J. Manning (USN ret)

WITH THE APPOINTMENT OF ITS FIRST full-time managing director, the Concrete Industry Board of New York City has taken on a "giant step" toward implementing its program of improving the quality of concrete for buildings and engineering structures in the New York metropolitan area. The new appointee is Vice Admiral John J. Manning (CEC, USN, retired), former chief of the Bureau of Yards and Docks. Admiral Manning came to his new post after having recently served as technical director for Kelly & Gruzen, Architects and Engineers.

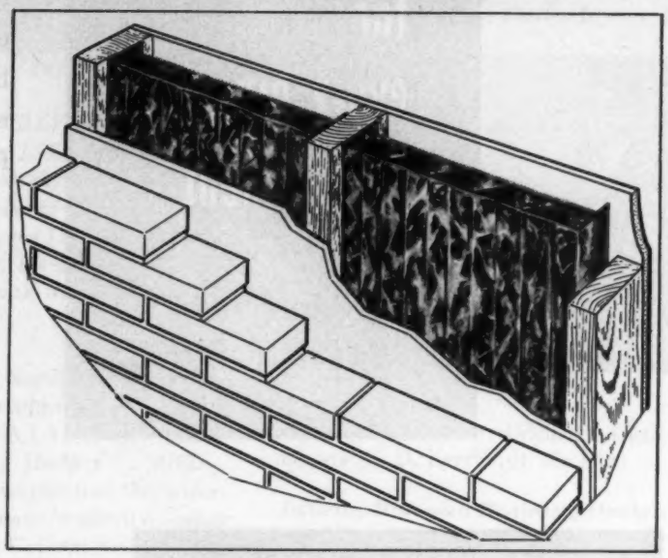
At the same time, Roger H. Corbetta, chairman of the C.I.B. Board of Directors, announced the election of Wallace K. Harrison of Harrison and Abramovitz, Architects, to the C.I.B. Board.

The C.I.B., the first association of its kind in the construction industry, was organized four years ago to improve the quality and techniques of concrete construction. It now has 161 members representing architects, engineers, contractors, cement manufacturers, ready-mix concrete plants, testing laboratories and material suppliers. It is sponsored by the Cement League, contractors specializing in concrete construction who are members of the Building Trades Employers' Association of New York City.

(Continued on page 282)

Metals are the Best Insulators

Against Heat, Cold, and Vapor in Building Spaces



The surfaces of ordinary IRON have about 4 times the reflectivity against heat rays that the surfaces of asbestos, asphalt paper, brick, rockwool, plaster, wood and other ordinary building materials have. Brass, gold, silver and ALUMINUM surfaces have about TEN TIMES the reflectivity against heat rays that these non-metallic materials have. Aluminum surfaces, for example, have a 97% reflectivity for RADIATION whereas the surfaces of most building materials, including ordinary insulations, have a reflectivity of only 10%.

RADIATION (heat rays) is responsible for 65% to 80% of all heat flow sideways in building spaces; 55% to 75% upwards; and 93% downwards.

Air space has low density, therefore heat flow by CONDUCTION through the **spaces** inside building walls, roofs, attics or floors is slight. CONVECTION can account for 15% to 30% of the heat flow sideways in such spaces, and up to 45% upwards. There is NO convection downwards.

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Multiple sheets of metal, spaced apart, make an excellent barrier to heat and vapor flow in any direction. In Multiple Accordion Aluminum, as it is installed in one simple operation, tough metallic sheets are automatically expanded so as to form alternating layers of aluminum, fiber and low density reflective air spaces. The fibrous and metallic sheets retard inner and outer convection.

Its continuous metal sheets, up to 750 feet long, have almost zero permeability to water vapor. Infiltration under flat stapled flanges is slight. Condensation formation on or within this type of insulation is minimized by its scientific construction. More than 220 million square feet are in use today.

To obtain MAXIMUM, **uniform-depth** protection against heat loss and condensation formation, it is necessary to use the new **edge-to-edge** multiple aluminum*, **each** sheet of which stretches from joist to joist, and also all through the flanges for further vapor protection as well as permanent attachment of each sheet.

*Patent applied for.

FREE! RADIATION TABLE AND ASHVE BOOKLET

A very interesting and useful "Radiation Table" listing the Emissivity, Absorptivity, and Reflectivity of a long list of materials has been prepared by Alexander Schwartz, president of Infra Insulation, Inc. It is yours for the asking.

Also yours for the asking is a discussion of how and why aluminum insulates, even under extreme conditions. It will be found in the booklet, *Thermal Test Coefficients of Aluminum Insulation for Buildings*, published by the American Society of Heating & Ventilating Engineers. A free copy and samples of the new insulation sent by us on request.

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New Awards in the South

MORE THAN 100 ARCHITECTS gathered in Chapel Hill January 27–29 for the winter meeting of the North Carolina Chapter of the American Institute of Architects. The meeting saw the inauguration of the chapter's new awards program, which gave nine awards of merit with special commendation as follows: office building converted from a garage, Charlotte — A. G. Odell, architect; house in Greensboro — Lowenstein-Atkinson Associates, architects; house near Charlotte — A. G. Odell; Chapel at Wrightsville Beach — Lesley N. Boney, architect; First Federal Savings & Loan Building, Catawba County — Clemmer Horton & Rudisill, architects; elementary school in Greensboro — Lowenstein-Atkinson Associates; Double Oaks Elementary School, Charlotte, A. G. Odell; Student Union, North Carolina State College — Deitrich-Knight & Associates, architects; and the Farm Colony Building State Hospital (mental institution), Morganton — John E. Ramsey, architect. Five awards of merit went to: a Dairy Bar, Catawba County — Clemmer, Horton & Rudisill; North Carolina Sanatorium, McCain — F. Carter Williams, architect; Architects Office Building, Greensboro — Lowenstein-Atkinson Associates; Senior High School, Charleston — Graves and Toy, architects; the architect's house in Salisbury — John E. Ramsey. The award winners were on view at the meeting along with a chapter-sponsored exhibit of painting and sculpture by North Carolina artists. Among the major addresses at the meeting was one by A.I.A. South Atlantic Regional Director Herbert C. Millkey, of Atlanta, who emphasized the importance of professional solidarity among architects. David C. Baer, A.I.A., Houston, talked to the delegates about the A.I.A. accounting system; this speech was supplemented by a panel discussion on the subject headed by Willard J. Graham, professor of accounting at the School of Business, University of North Carolina. Members elected F. Carter Williams to succeed A. G. Odell as president of the chapter; other officers elected were W. R. James Jr., vice president; J. W. Griffith, treasurer; Cyrill H. Pfohl, secretary; Mr. Odell, R. Clemmer and E. D. Everhardt, directors.

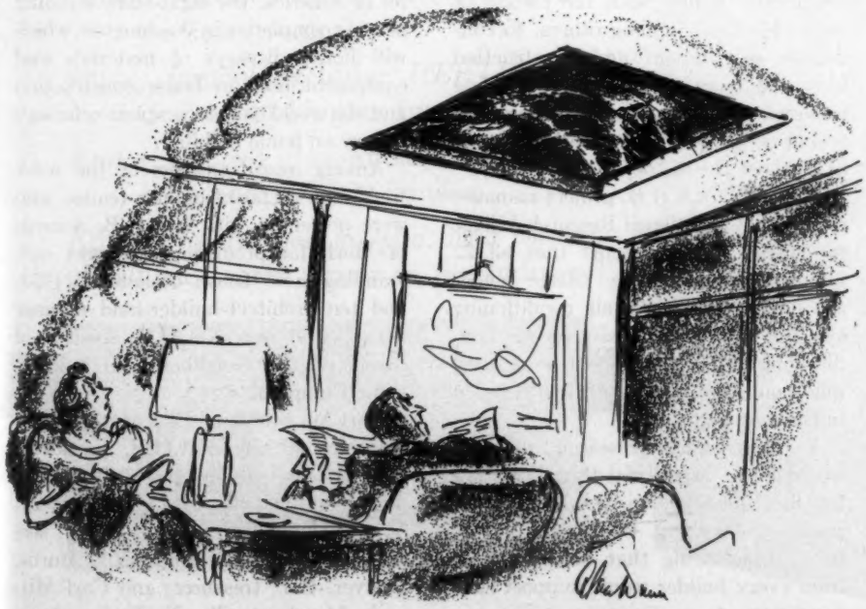


CENTRAL PENNSYLVANIA A.I.A. past president William J. Zalewski (standing) congratulates newly-elected president W. Robert Arnold, while the new vice president, Philip F. Hallock, and Clifford L. Coleman, reelected secretary, beam. Not present: the new treasurer, Francis R. Sullivan

SOUTHWEST CLAY PRODUCTS Association has established a new scholarship for architecture students; and here the Association's executive secretary, Clayton T. Grimm, is shown presenting the program to R. Max Brooks, Texas Society of Architects vice president; looking on is the Society's executive director, John Flowers Jr.



Neal Douglass



— Drawn for the RECORD *by Alan Dunn*

Automation and Building Design

A SYMPOSIUM on "The Application of Automation to Building Design and Construction" will be held May 12–13 at Michigan State College, East Lansing, Mich. The symposium is sponsored by the Department of Civil Engineering as part of an overall School of Engineering symposium, "Automation — Engineering for Tomorrow," arranged as a feature of this year's Centennial celebration at Michigan State. As listed on the Civil Engineering's preliminary program, topics to be discussed will include the status of automation in the building industry, modular coordination, the architect and automation, automation techniques in the design of concrete buildings and of other than concrete buildings. The Civil Engineering group will join the larger session for a day devoted to two panel discussions — one on adaptation of automation in the manufacture of building materials and products, the other on adapting construction equipment to automation. The sessions are open to all interested.

Photographers on Parade

A SPECIAL EXHIBIT of architectural photography sponsored by the American Institute of Architects and planned with the cooperation of the Architectural Photographers Association will be held in the A.I.A. Gallery in Washington from May 20 through June 24. Entries are invited until May 2 from all professional photographers who have had their work

(Continued on page 16)

(Continued from page 15)

published in national publications within the last five years. Three awards of merit will be selected from the exhibit by Beaumont Newhall, curator of George Eastman House, Rochester, who has also consented to choose the prints for the exhibition. After its showing at the A.I.A. the exhibit will be circulated by the Traveling Exhibition Service of the Smithsonian Institution. Details on submission from: Mrs. Alice G. Korff, Curator of Gallery, The American Institute of Architects, 1735 New York Avenue N.W., Washington 6, D. C.

Hitchcock Award to Hitchcock

THE SOCIETY OF ARCHITECTURAL HISTORIANS, holding its eighth annual meeting January 27–30 in New York, presented its Alice Davis Hitchcock Medal to Henry-Russell Hitchcock for his two-volume study of *Early Victorian Architecture in Britain* (see review, page 46). The medal, an annual award "for the outstanding contribution during the year to the history of architecture," was donated to the Society last year by Mr. Hitchcock in honor of his mother. One of the major panels on the Society's four-day program was "Architectural History and the Present-Day Architect," which was moderated by Carroll L. V. Meeks of Yale University; other panelists were Max Abramovitz of the New York architectural firm of Harrison and Abramovitz; Howard Dearstyne of Colonial Williamsburg; James Marston Fitch of Columbia University; Philip Johnson of the Museum of Modern Art; and Vincent Scully of Yale University. Delegates elected these new officers: James C. Van Derpool, Columbia University — president; Richard H. Howland, Johns Hopkins University — vice president; Barbara Wriston — secretary; and Robert Walker, Swarthmore College — treasurer.

Houston in '59?

OPENING DATE of the Houston World's Fair, formerly tentatively set for 1956, has been postponed to "1959 at the earliest," on recommendation of Booz, Allen and Hamilton, management consultants who were engaged to make an exhaustive economic and feasibility survey. Also recommended was consideration of several other sites than the one originally leased, with the idea that more favorable public support might be realized if the Fair site could replace blighted or slum areas. Gosta Sjolin, A.I.A., is chairman of the Fair's Committee on Planning and Design.

MORE THAN 25,000 THRONG THE HOMEBUILDERS' BIG SHOW IN CHICAGO

THE REAL BOOM IN HOME BUILDING in America lies ahead of us, not behind us," was the opening shot of retiring President R. G. ("Dick") Hughes at the eleventh annual convention of the National Association of Home Builders in Chicago from January 16 to 20. His optimism was echoed through the week in the various speeches and discussions and in the elaborate and sometimes spectacular displays of the approximately 350 manufacturers represented. In numbers alone the "biggest convention ever" mirrored the enthusiasm of more than 25,000 attending.

Emphasis on design and research pointed up the importance of the architect's role in house planning. Architect-builder Carl Koch, designer of the much-talked-about Techbuilt house, referred to "a new concept of a man's castle," which "cannot be new just to be different."

Stressing the importance of teamwork and mass production, he went on to say, "When mass-producing, there is more time and money for research and study. You can continue making even a simple drawer until you develop 'the' right drawer." Speaking on the same panel, Edward M. Fickett, A.I.A., of Los Angeles, espoused close cooperation between the architect and builder all the way from site selection to the selling program. Neil A. Conner, A.I.A., director of the FHA Architectural Standards Division, reported that the FHA is devoting more and more consideration to better quality housing.

Two research villages were subjects of reports at the convention. U. S. Gypsum Company, sponsor of a Research Village at Barrington, Ill. (AR, March 1954, pp. 10–12), feted the architects of their six research houses, who viewed the finished products for the first time. Reportedly happy with the results of their objectives (among others, to contribute new design and construction ideas and to create new uses for building materials), they listened to supervising architect Morgan Yost outline to an SRO house the history of the "idea."

Ned Cole, N.A.H.B. project manager of the Air Conditioned Research Village in Austin, Tex., reported that all 22 families occupying the Village homes are happy with their air conditioning systems and would insist on air conditioning in any subsequent home they might purchase, provided it was included in the mortgage.

A technological research program would be a "wonderful thing" for the building industry, wished FHA Commissioner Norman P. Mason in his turn, conjecturing that $1 per house from every builder would support such a program.

Home remodeling will be a $6 billion program during 1955, experts on a panel discussing profits from same predicted. Sam Paul, A.I.A., of Long Island, suggested that a complete "diagnosis" of any house to be remodeled be completed by an architect and engineer before entering the planning or constructing phase.

One of the features of the convention was a model of the N.A.H.B. Home Center of America, the eight-story building nearing completion in Washington, which will house displays of materials and equipment used in house construction and the world's most complete reference library on home building.

Among award winners of the week were nine architect-builder teams, who were presented with N.A.H.B. Awards of Merit for producing the most outstanding new house designs of 1954, and ten architect-builder-land planner teams, who won N.A.H.B. Awards of Merit in the Neighborhood Development Competition.

Earl W. Smith of El Cerrito, Calif., was elected new N.A.H.B. president. Other officers-elect are Joseph B. Maverstick, Dayton, Ohio, first vice president; V. O. Stringfellow, Seattle, Wash., second vice president; Franklin L. Burns, Denver, Col., treasurer; and Carl Mitnick, Merchantsville, N. J., Secretary.

(More news on page 20)

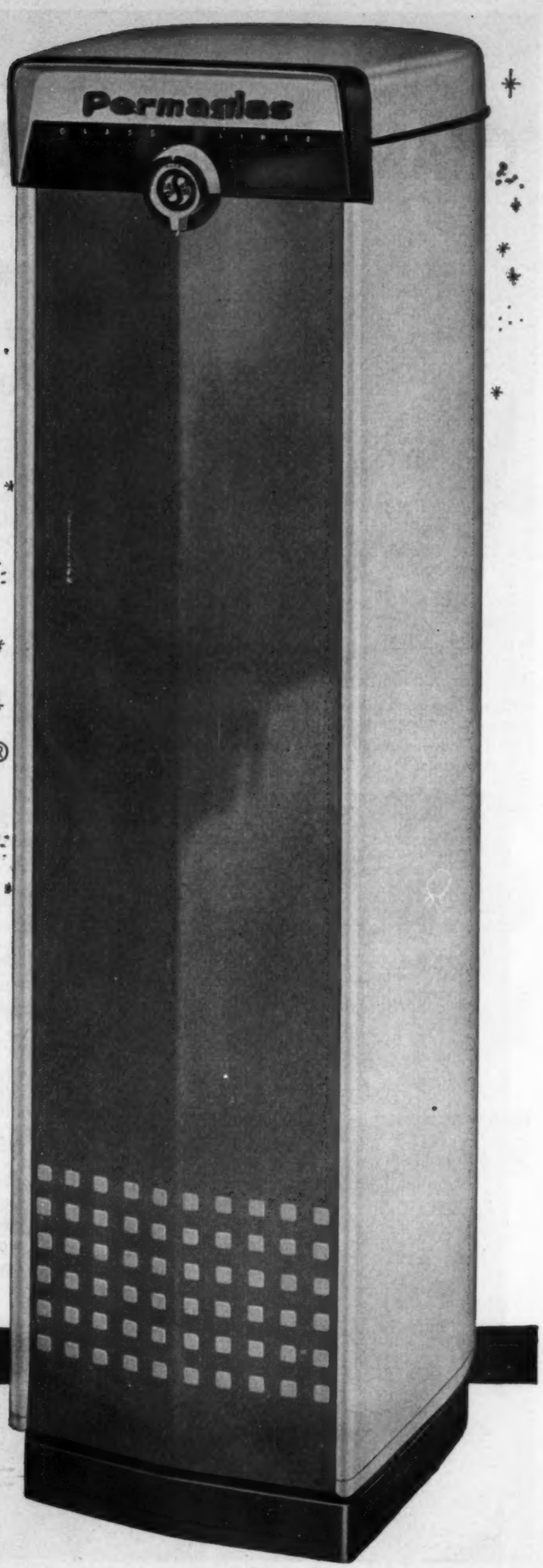
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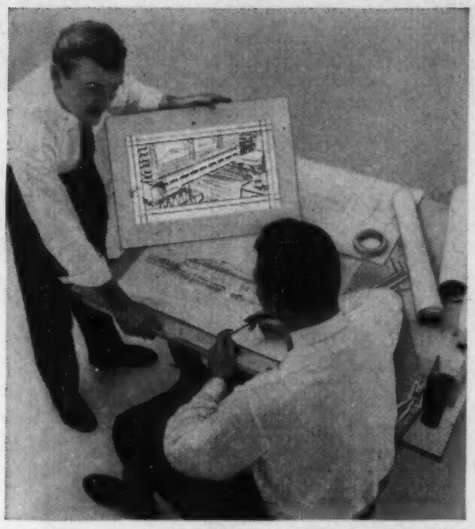
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So, next time the question comes up, perhaps you should qualify your answer with Crane Radiant Baseboard.

Your client can see how inconspicuous it is—that it takes up virtually no space in a room. And you can mention that Crane Radiant Baseboard provides heat by a combination of radiation and convection in almost the exact ratio that the human body loses heat—so it provides the maximum possible comfort. Never any drafts. Never any hot spots. Warmth is constant all over the room.

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In this exclusive club, Crane Radiant Baseboard permits the use of a wide expanse of glass without creating uncomfortable drafts or "chills spots." Doesn't interfere with drapes or placement of furniture.



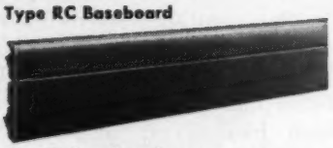
In modern offices, Crane Radiant Baseboard provides smooth, even warmth that doesn't vary more than a degree or two anywhere in the room.



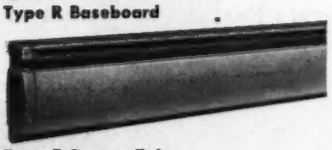
In modern homes, Crane Radiant Baseboard blends with home decor, provides finest kind of heat possible. May be installed at ceiling level in kitchens, and painted as desired.



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CRANE STARTS ITS SECOND CENTURY OF QUALITY

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Sir Arthur Stephenson (center) visits Leonard A. Scheele, Surgeon-General of the U. S. (left) and Dr. Vane Hoge, Assistant Surgeon-General and Associate Chief, Bureau of Medical Services, Department of Health, Education and Welfare

R.I.B.A. GOLD MEDALIST TOURS U. S. ON VISIT FROM AUSTRALIA

SIR ARTHUR GEORGE STEPHENSON, recipient of the Royal Institute of British Architects' Gold Medal in 1954, recently completed a tour of the United States. Sent on a quasi-official trip by the Australian government, he studied American hospital design and the workings of the Hill-Burton hospital construction program. He had just completed a similar tour of Europe.

Sir Arthur received the medal directly from Queen Elizabeth II on her 1954 Australian visit. The award is given to a man "whose life work has promoted or facilitated the knowledge of architecture or various branches of science connected therewith." This was the first time the medal had been awarded to an architect in Australia or "in any other country south of the equator."

The Melbourne firm of Stephenson and Turner has concentrated its practice to a great extent on hospitals (examples of which are shown herewith). It has also designed civic, industrial and exhibition buildings, including the Australian building at the New York World's Fair, and has worked on ship and railway car design.



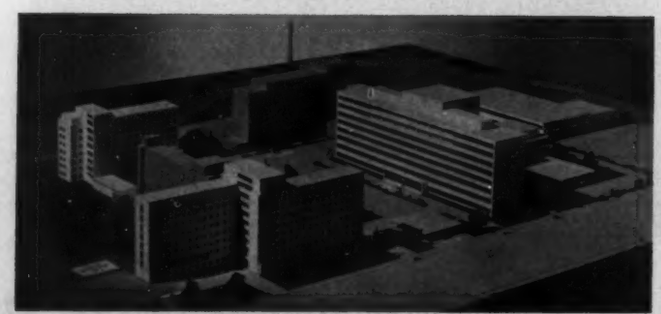
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Models of recent projects designed by Stephenson and Turner include: 1. Healesville Hospital, Healesville, Victoria; 2. Maryborough Hospital, Maryborough, Vic.; 3. the Royal Children's Hospital, Melbourne, Vic.; 4. another hospital project planned for South Australia; and 5. the Geelong Old Folks' Home in Geelong, Vic.

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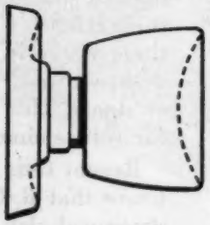


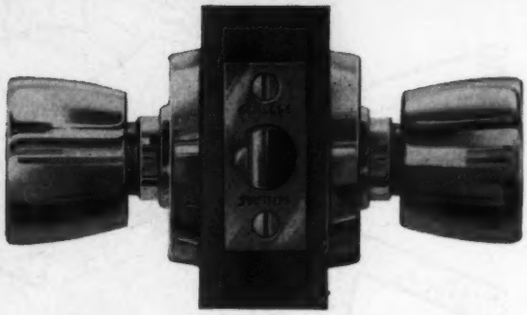
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This new folder suggests many refreshing ways to feature doors ... incorporating Schlage's 5 striking new designs. Fully illustrated with complete specifications.

Write to Schlage Lock Company, 2201 Bayshore Boulevard, San Francisco, California

SCHLAGE

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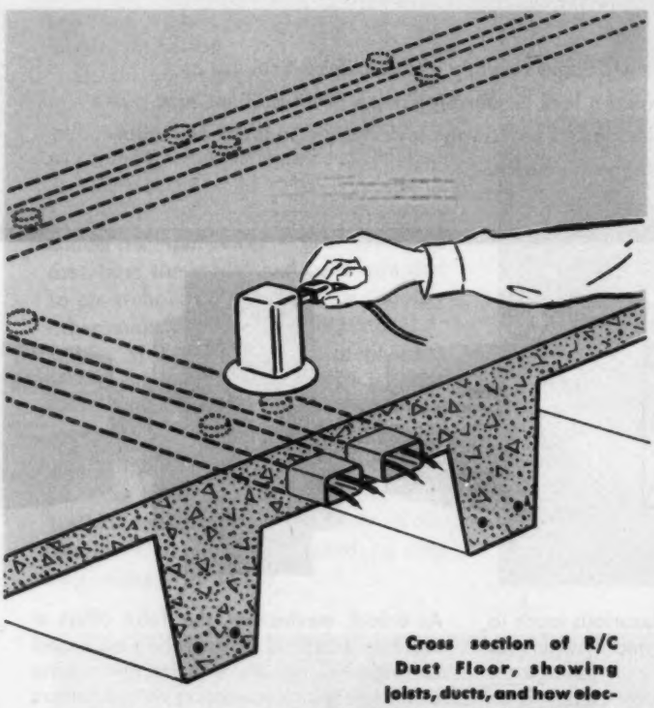
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at a new low cost!

standard ducts can be buried in structural concrete—no fill needed



Cross section of R/C Duct Floor, showing joists, ducts, and how electrical outlet is attached.

R/C Duct Floors provide you with a complete network of underfloor electrical outlets for power, light, telephone, and intercom systems...*at low cost!*

R/C Duct Floors consist of electrical distribution ducts set in standard reinforced concrete joist floors. No fill is needed as the ducts are buried in the structural slab of the floor. As a result, electrified R/C Duct Floors can be constructed at a cost that is appreciably less than the cost of cellular steel flooring.

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Recent tests made at Underwriters' Laboratories prove that R/C Duct Floors, with the ducts in the structural slab, have a fire rating which meets all building code requirements.

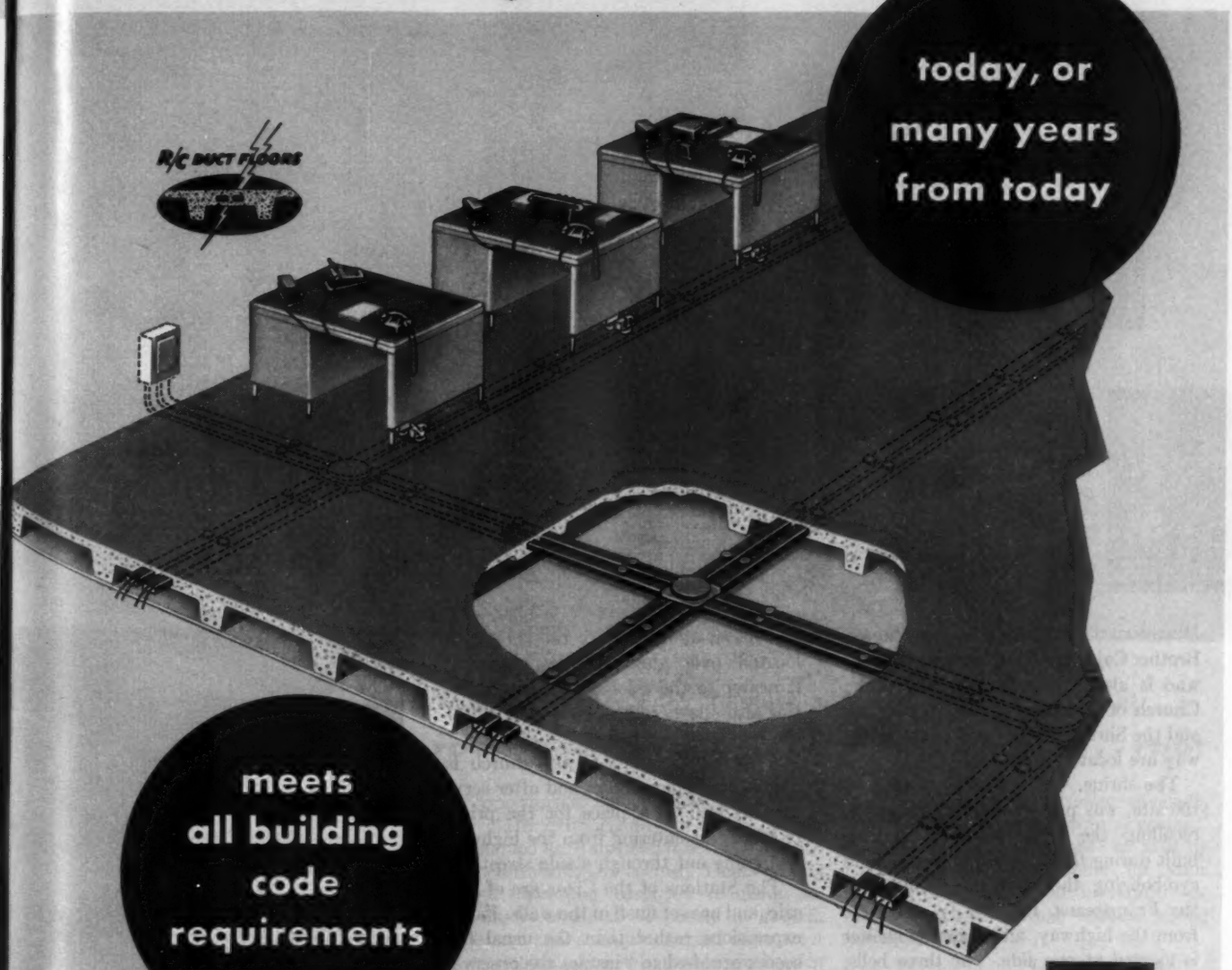
Before you design your next building, investigate R/C Duct Floors. They can be built with standard forms and ducts, and require no special engineering. And, compare the cost of R/C Duct Floors with cellular steel type construction!



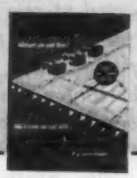
R/C DUCT FLOORS

(Electrified concrete joist floors)

ELECTRICAL OUTLETS
wherever you need them



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ART AND ARCHITECTURE: CHURCH DEDICATED IN NEW JERSEY

DESIGNED BY A FRANCISCAN MONK, Brother Cajetan J. B. Baumann, O.F.M., who is also a practicing architect, the Church of Our Lady of the Holy Angels and the Shrine of Our Lady of the Highway are located in Singac, N. J.

The shrine, which already existed on the site, was preserved in a campanile, recalling the bell towers of churches built during the time of St. Francis and symbolizing the missionary efforts of the Franciscans. It is easily accessible from the highway, and a candle shelter is located at one side. The three bells, cast in Holland, are dedicated to the Holy Family.

The church itself is set at the back of the site to reduce the distractions of a busy highway and to take advantage of the grade, which made it possible for the Parish Hall, under the church, to be kept above grade, and to eliminate the danger of flood damage from the Passaic River.

The church, which seats 600, is separated from the narthex by a glass screen, an arrangement intended to "extend a warm invitation to the church proper," and to provide space for mothers with small children. The choir, instead of being placed at the rear of the church, is located over the sacristies, bringing it nearer to the celebrant of the Mass; this also allows room in the narthex for the baptistry and a shrine.

A terrace in front of the church is a gathering place before and after services, as well as a place for the priest to bless cars entering from the highway and going out through a side street.

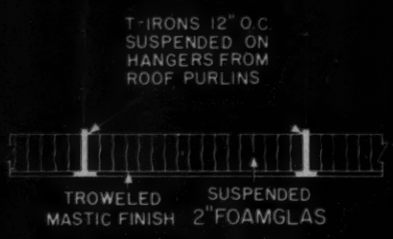
The Stations of the Cross are of mosaic, and are set flush in the walls. Facial expressions rather than the usual full scenes are used to "inspire the observer to contemplation and fuller realization of Christ's suffering." A mosaic frieze over the front of the church depicts the Madonna surrounded by angels. The rose window over the altar is also dedicated to the Madonna. The glass façade is composed of stained and etched glass panels, representing the twelve articles of faith, while the deep-set nave windows portray the life of the Evangelists and the Franciscan saints. Six large windows in the sanctuary, which give a side light to the altar, are of plain glass with stained glass insets describing the life of Christ. Frans Slijpen of Maastricht,

(*Continued on page 284*)

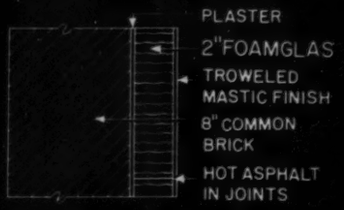




DOUGH ROOMS (90°F-90%R.H.)
AND COOLERS (35 to 40°F)
TYPICAL SECTIONS



TYPICAL SUSPENDED CEILING SECTION

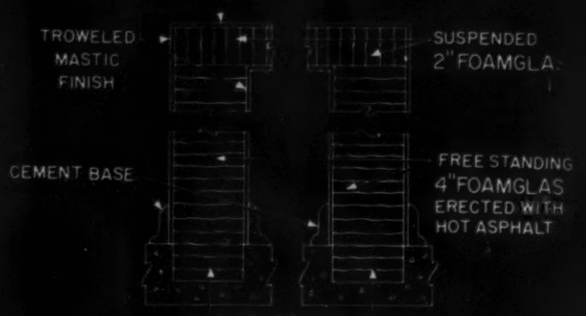


TYPICAL WALL LINING SECTION



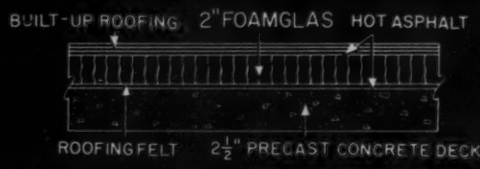
TYPICAL COREWALL SECTION

ICING TUNNEL
TYPICAL SECTION



FOAMGLAS IMBEDDED
2" IN CONCRETE FLOOR

ROOF
TYPICAL SECTION



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General Contractor: George A. Fuller Co., Chicago
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hot, humid dough rooms . . . coolers . . . icing tunnels . . . roof

K. F. MacLellan, president of United Biscuit Company, tells how they benefited from the unique properties of FOAMGLAS insulation at their Sawyer Division's big new plant in Melrose Park, Illinois:

"To insulate the walls of dough setting rooms kept at 90° F.—90% relative humidity *and* coolers kept at 35 to 40° F. we picked FOAMGLAS. It stays completely dry, fully efficient in both locations to help control temperature and humidity. Also it is inorganic and doesn't support vermin life . . . that's particularly important, of course, in all food plants.

"The extra rigidity of FOAMGLAS enabled us to suspend it between T-irons to form dropped ceilings. That's cutting our operating costs by reducing the volume of air to be heated or cooled. Its unusual strength enabled us to erect free-standing tunnels in which we harden freshly applied cake frostings. The elimination of structural supports reduced construction costs."

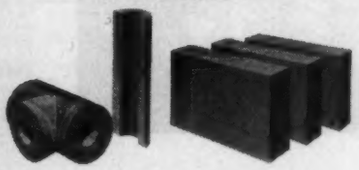
Mr. MacLellan concludes: "We also insulated the entire roof area with fireproof FOAMGLAS. No other insulation could have given us such effective results on such diverse, difficult applications."

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NEWS FROM CANADA *By John Caulfield Smith*

BUILDING VOLUME IN '55 TO BE HIGH, SAYS BRUNET

A CONSTRUCTION VOLUME equal to or surpassing that of 1954 was predicted for this year by Raymond Brunet, O.B.E., in his presidential address at the recent Canadian Construction Association convention held in Quebec City.

Anticipating a total of $4.75 billion in construction, Mr. Brunet said that about 30 per cent would be in the housing field, another 30 per cent in other types of building construction, and the remaining 40 per cent in various engineering categories. In explaining his optimism, Mr. Brunet noted, "The present carryover of work is above average, personal savings and corporate investment funds are at high levels, the backlog of road requirements and other public works is steadily increasing and the general economic climate of the country indicates continued over-all expansion." He added that a larger population would be healthy for Canadian construction and the economy in general, and urged a large-scale selective immigration program as a means of supplementing the natural increase in population.

Reporting on current construction costs, Mr. Brunet said that they had remained fairly constant during the past three years, and were not expected to increase in 1955. He warned the industry, however, that cost stability was essential in maintaining the present level of construction.

GOVERNMENT CALLS FOR PUBLIC WORKS INCREASE

IN A SPEECH FROM THE THRONE read by Governor-General Vincent Massey, the Government called for a stepped-up public works program to offset the slight economic decline suffered by Canada in 1954, and to combat regional unemployment. The Government also suggested that seasonal unemployment in the construction industry should be relieved in the winter by increased supplementary benefits paid under the Unemployment Insurance Act.

Other legislation suggested in the address included the prohibiting of a dam which British Columbia proposes building to supply power to a United States aluminum plant across the border.

COMPETITION CONSIDERED FOR CANADA HOUSE PLAN

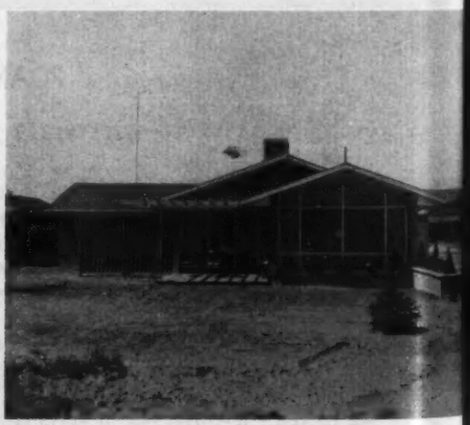
THE POSSIBILITY of holding an architectural competition for the design for the "Canada House" proposed for New York is being considered, it has been reported. The Canada House project was first suggested in October 1953 by Hon. Ray Lawson, the Canadian consul general in New York. According to his plan, the building would be erected and operated as a private enter-

(*Continued on page 30*)

DOMESTIC BUILDING of recent vintage has included: (1) the Conrad residence in Thorncrest Village, Etobicoke Township, Ont., a single-story house designed for the needs of a permanent invalid — A. Bruce Etherington, Oakville, Ont., architect; (2) a house built for show purposes in a new subdivision at St. Catharines, Ont. — Macbeth & Williams, St. Catharines, architects; (3) the Benvenuto Apartments, Toronto — Page & Steele, Toronto, architects; (4) the Sandringham Apartments, Ottawa — Page & Steele, architects; and (5) the Hycroft Towers, Vancouver, B. C. — Semmens & Simpson, Vancouver, architects



1



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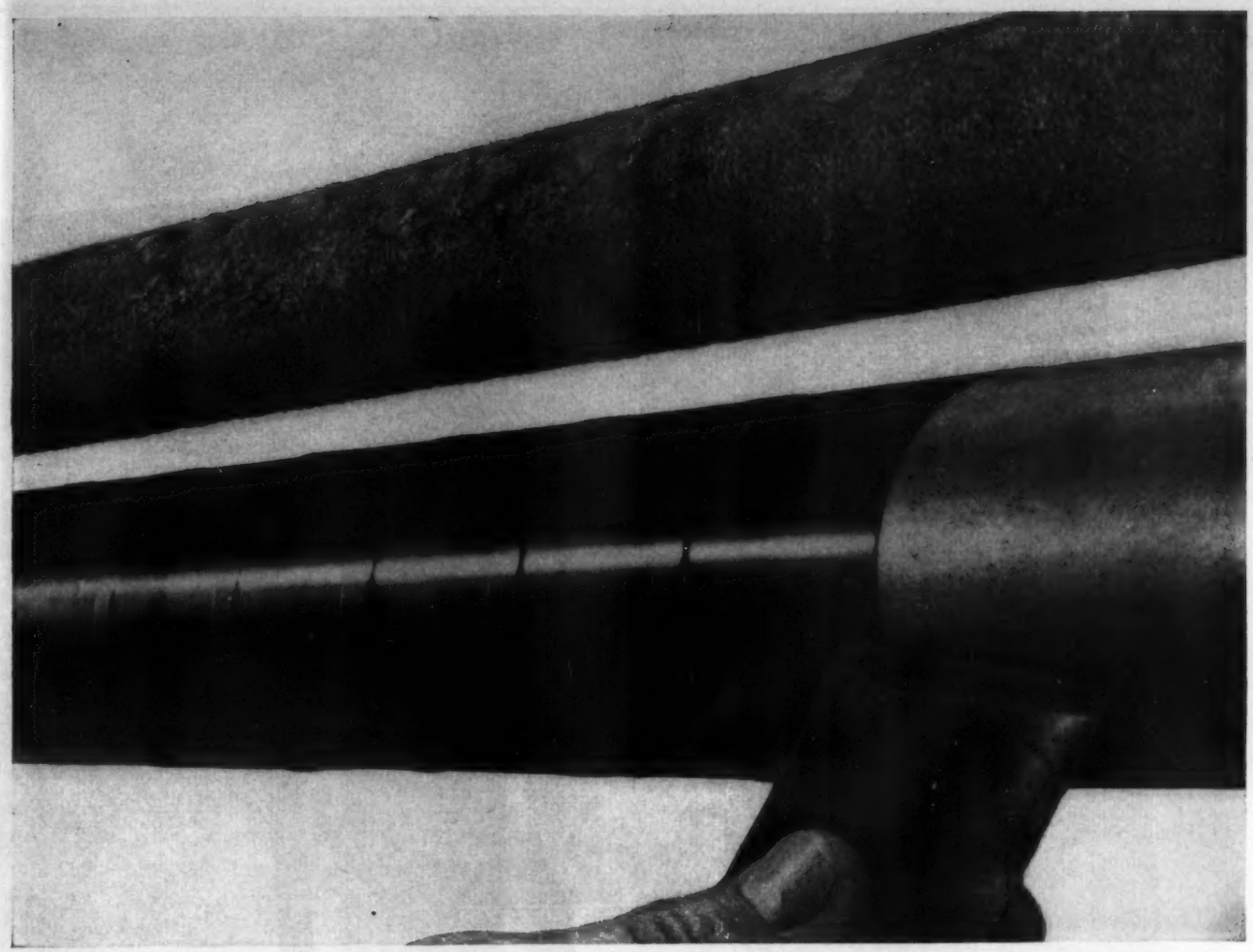
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4



5



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PELLA CASEMENTS are the highest, widest, most handsome casements available. Glass sizes range up to 24" x 60". Think of the opportunity for distinctive design! The wide range of Pella sizes, used singly or in a combination, makes it possible to create perfect window proportions for every architectural design concept.

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WOOD CASEMENT WINDOWS

CANADA

(*Continued from page 26*)

prise, and would eventually be turned over to the Government.

Mr. Lawson also reported that donations to the building fund now equal $3 million; the original goal was only $1.2 million.



The projected Edmonton City Hall (architects' model above) is scheduled for completion late this year. Architects are Dewar, Stevenson & Stanley

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HOME IMPROVEMENT LOANS PERMITTED BY NHA RULES

Owners of single houses are able to borrow a maximum of $2500 and apartment owners $6250 under the National Housing Act home improvement regulations now in effect. The enabling sections of the Act have been on the books, for the most part, for years. The Government held them in reserve as a means of bolstering the national economy and cutting unemployment.

Banks are to make the loans on promissory notes signed, in the majority of cases, by husband and wife. Maximum life of the loans runs for three years on borrowings of $1250 or less, five years for higher amounts. The maximum interest is 5.5 per cent, as on NHA mortgage loans.

ARCHITECTURAL TRAINING EXAMINED AT CONVENTION

Speaking at the annual meeting of the Ontario Association of Architects, held January 21 and 22 at Toronto, A. S. Mathers, chairman of the O.A.A. committee on education, expressed concern about the number of architectural students who fail to complete their courses.

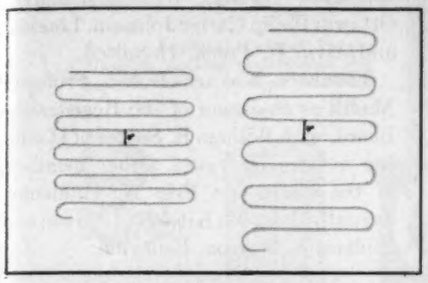
Reporting that almost 50 per cent of the students enrolled at the University of Toronto's School of Architecture, and 85 per cent of those at the Ryerson Institute of Technology, fail to graduate, Mr. Mathers called on the Association to make an effort toward selecting likely students before enrollment.

One of Mr. Mathers' recommendations was that "under the authority of the Association there be made readily available to the public and particularly

(*Continued on page 32*)

Everyone saves with new Anaconda Pre-Formed Panel Grids

New radiant panel heating coils made of Type L Copper Tube save contractors installation time and money . . . save engineers time and effort in planning and designing radiant panel heating installations



NEW ANACONDA GRIDS* (PG®'s) contain 50 linear feet of Type L Copper Tube and come in two tube sizes—left, ⅜" (½" O.D.) for ceilings; right, ½" (⅝" O.D.) for floors.



DESIGN AND LAYOUT is simplified by Anaconda's free layout kit of printed, gummed PG scale drawings, which show precise layout of heating panels on blueprints.



MACHINE-FORMED PG's are compactly packaged 4 to a carton. One tube end of each PG is expanded so that it can be solder-connected in series without requiring fittings.



PG's ARE EASILY INSTALLED—A ⅜" PG weighs only 10 pounds, is easily lifted and propped in place, leaving worker's hands free to fasten straps. Here, metal lath goes under the PG's.



A HOOK TYPE FASTENER offers another easy, quick installation method. Fasteners are partially set in joists, PG's are positioned, and fasteners driven home.



HEAT FOR THIS basement game room will be provided by ½" PG's embedded in concrete. For floor or ceiling installations the pre-formed Anaconda Panel Grid offers many economies.



CEILING INSTALLATION ready for plastering. Note tube spacing narrows to 4½" c-c nearest the outside walls, and supply lines to panel circuits run next to outside wall.



NO SAGS OR DIPS in the tube lines permits a uniform plaster thickness, which means savings in time and materials.



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CANADA (*Cont. from p. 30*)

to secondary school teachers, a complete and specific document setting forth what is required of any person who attempts to qualify himself for professional practice and/or a vocation as an architectural draftsman." Mr. Mathers also suggested that all applicants for architectural training be required to take a pre-registration examination for aptitude, attitude and scholastic ability.

Prof. H. H. Madill, chairman of the Ontario Registration Board, reported on the Board's architectural studies program, the results of which, he said, are somewhat less than satisfactory. He commented that the most efficient training for an architect is a course at a recognized school of architecture, and that only able students prevented from attending a university for financial or other reasons should be encouraged to take the Board's course.

New Officers Elected

George D. Gibson of Toronto was elected president of the association for 1955. Other officers elected included George Y. Masson, Windsor — vice president; E. C. S. Cox, Toronto — treasurer; and councillors — Gordon S. Adamson, Toronto; Watson Balharrie, Ottawa; Philip Carter Johnson, London; and Alvin R. Prack, Hamilton.

Members also re-elected Professor Madill as chairman of the Registration Board, with William R. Souter of Hamilton as vice chairman. Other members of the Board are Eric W. Haldenby, Toronto; John M. Kitchen, Ottawa; and William A. Watson, Belleville.

MORTGAGE LOANS MOUNT UNDER NEW HOUSING ACT

Mortgage loans under the National Housing Act totaled $426 million in the first 11 months of 1954, $188 million more than the $238 million recorded in the same months of 1953. The Act was amended last March to permit chartered banks to lend on insured mortgages.

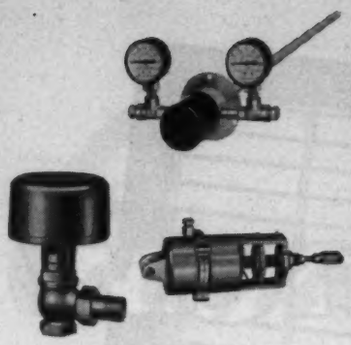
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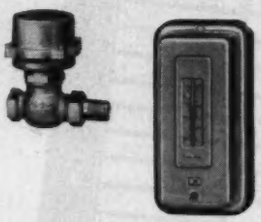
In Vancouver, T. Eaton Company Ltd. has completed a 500-car garage in which customers will park their own cars; garage and store are connected by a bridge. One-way traffic ascends gentle two per cent grade, descends steeper spiral ramp. Columns were eliminated as a driving hazard. Design: Eaton staff architects







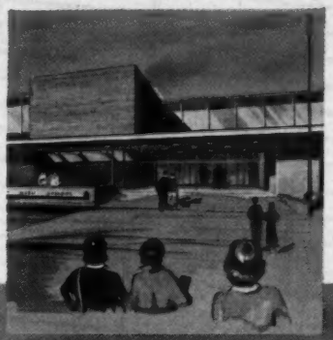
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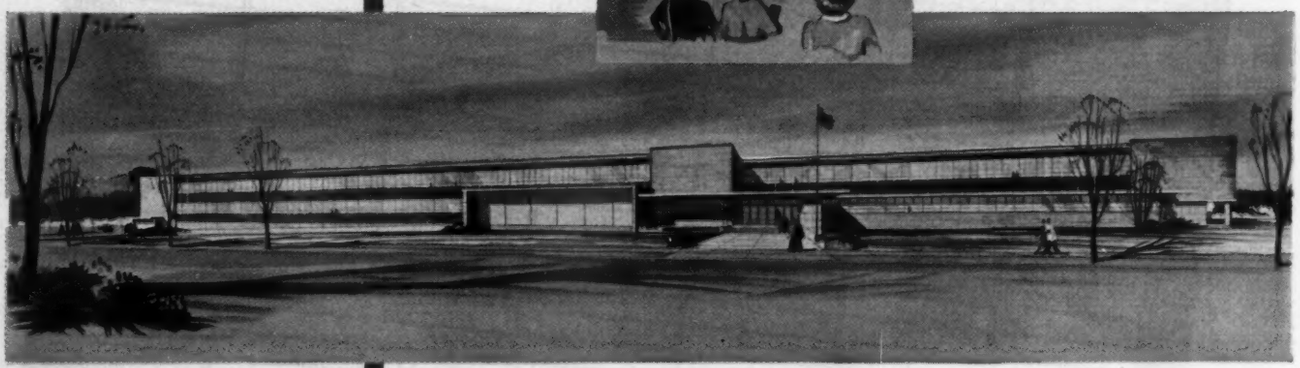


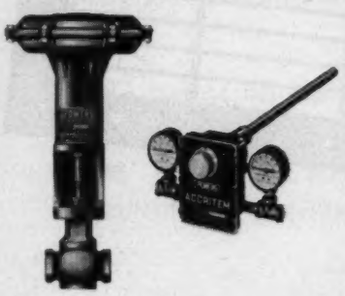


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ASSOCIATED WITH: The Board of School Directors, Fred E. Wegner, Architect
CONTRACTORS: Heating, S. V. Hanley Co. • Plumbing, Kuetemeyer Plbg. & Htg. Co.

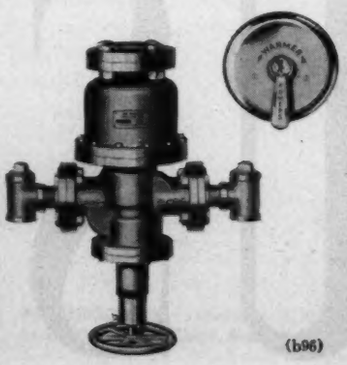
Northwest Senior High School **Milwaukee's new "school of the future"**







Only a few Powers Controls for heating systems, shower baths and water heaters are shown here.



(b96)

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For the classrooms and other heated and ventilated spaces Powers control will provide utmost comfort and fuel economy with lowest operating and maintenance cost. Some Wisconsin schools using Powers systems report dependable operation after 30 to 50 years.

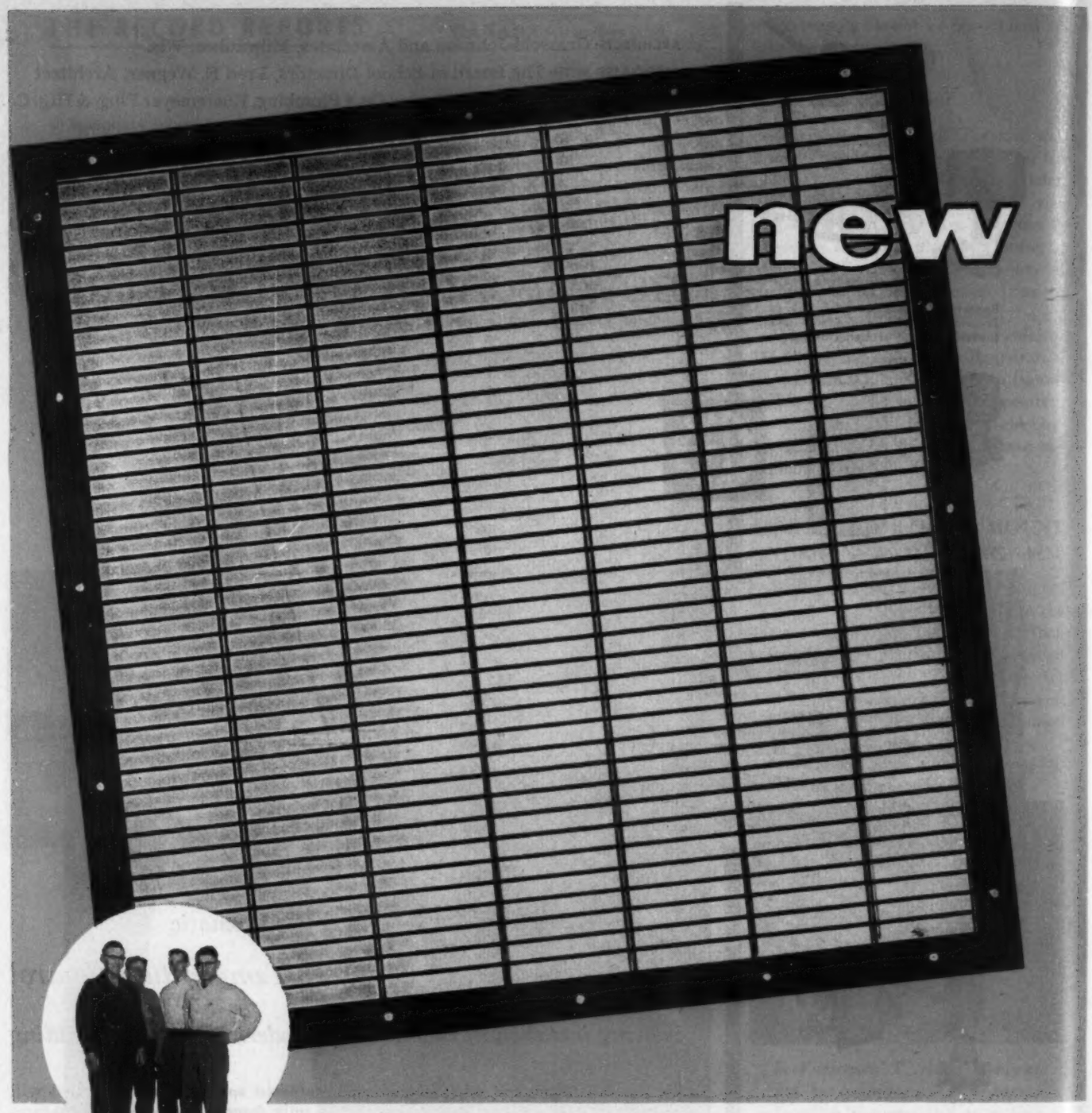
Powers individually controlled shower baths and groups of lavatories and gang showers will be unsurpassed for safety, comfort and economical use of water.

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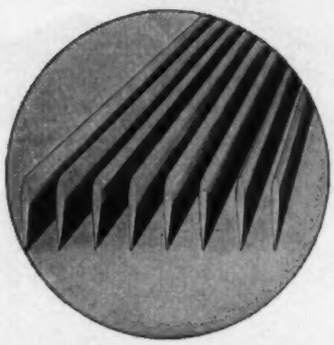
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The Volume Controller features the famous solid section, extruded aluminum, streamlined Airfoil louvers. Noise and turbulence are cut to a minimum. At the same time, perfect, draft-free air distribution is assured.



• MORE AIR CONTROL PER SQUARE INCH. Close up view of *Airfoil* volume control louvers. Each blade is individually adjustable. Concealed louver support eliminates mullions and butted construction.

● 14 GAUGE ROUND EDGED FLAT WIRE STEEL BLADES ● VERTICAL STEEL SUPPORT BARS PLACED ON 6 INCH CENTERS ● 16 GAUGE STEEL EXTRA WIDE BORDER FOR EASY MOUNTING ● STANDARD GRADE PRIMER COAT FINISH.

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Gentlemen: Please send me complete free information on the new design gymnasium grille.

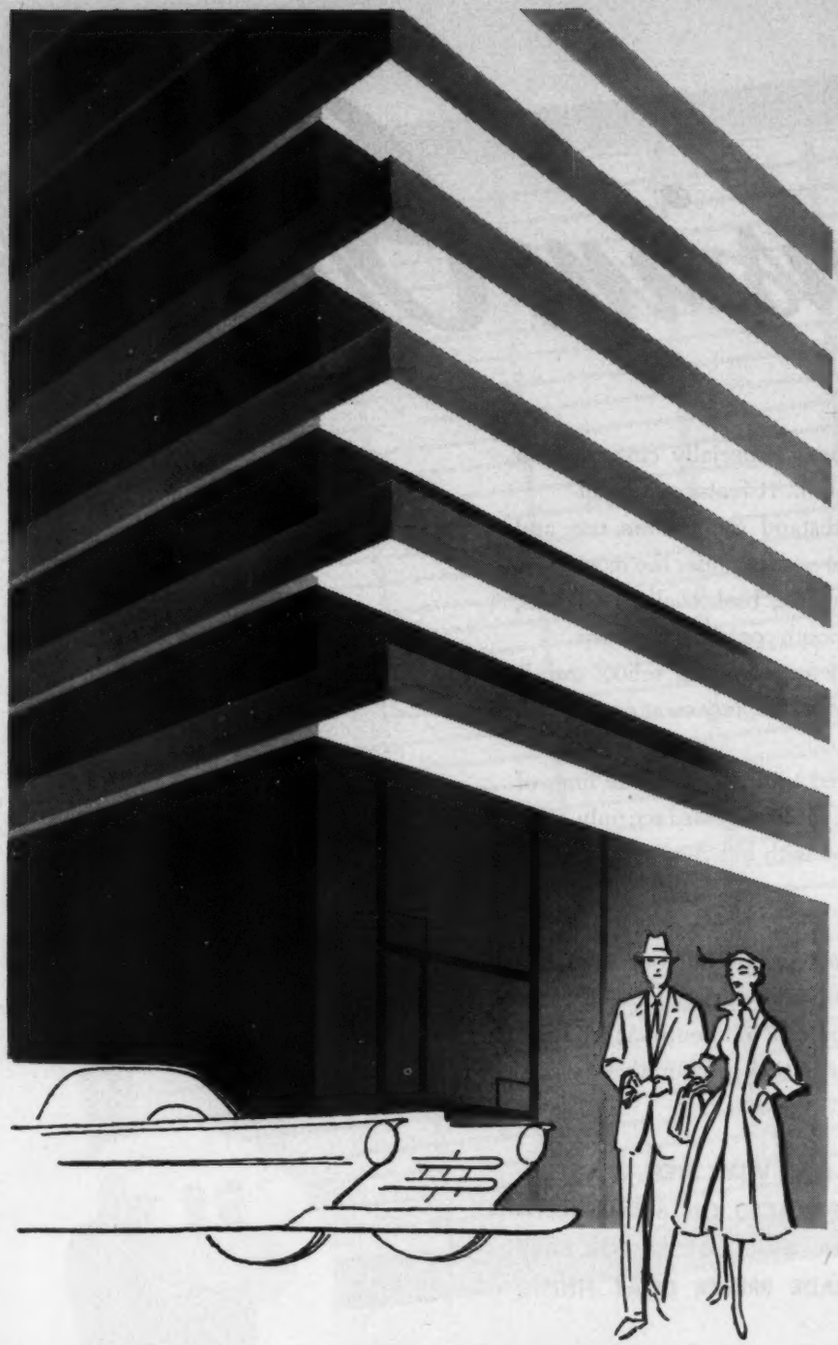
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FREE BROCHURE . . . also Special School and Institutions Price Chart. Mail coupon today.



To Create The Right Impression...

more and more comes the realization that it costs no more to create the right impression and it pays off in better public relations. Our up-to-the-minute thinking at Tomlinson and our tradition of quality give you contract furniture to meet your every specification. For furniture with vision ...look to Tomlinson.

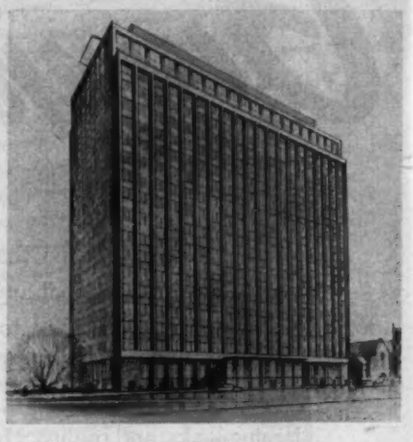


OVER HALF A CENTURY'S LEADERSHIP IN STYLING FURNITURE OF UNMATCHED VALUE

THE RECORD REPORTS

CANADA

(*Continued from page 32*)



The 19-story office building for the Oil Company Ltd., Toronto, will be the "largest all-welded steel and stone office building" in Canada, and will cost $8 million. Mathers & Haldenby of Toronto are the architects

In November, the latest month for which figures are available, loans were $34 million, $13 million more than was lent in November 1953. The total number of houses covered by the loans increased in November to 3658 from 2657 in 1953, and in the 11-month period, to 46,823 from 30,409 for the year before.

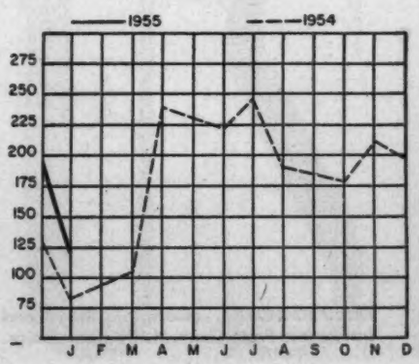
CORRECTION

Architects of the Collingwood Collegiate Institute, reported in the December 1954 issue of the RECORD, were Shore & Moffat. The firm name was incorrectly given as Stone & Moffat.

(*More news on page 38*)

Contracts Awarded: Comparative Figures Compiled by MacLean Building Reports

(in $ million)





This electrical surge test is one of the 258 tests that every G-E ballast receives during the manufacturing cycle. This test subjects G-E ballasts to the most severe conditions they will ever encounter in actual operation; assuring you of long ballast life and low lighting costs.

Flora* shows you why . . .

Superior Quality Control of G-E Ballasts Helps You Save Lighting Dollars

Lighting engineers, designers, and users have learned to depend upon the consistently high quality of General Electric fluorescent lamp ballasts.

They know that the rigid material specifications and constant production line tests mean uniformly good ballasts; save lighting dollars by minimizing early replacement and maintenance costs.

Starting with raw steel and copper wire at the receiving dock and ending only when the finished ballast is loaded for shipment, G-E quality control engineers constantly test raw material and ballast parts to meet rigid mechanical and electrical requirements.

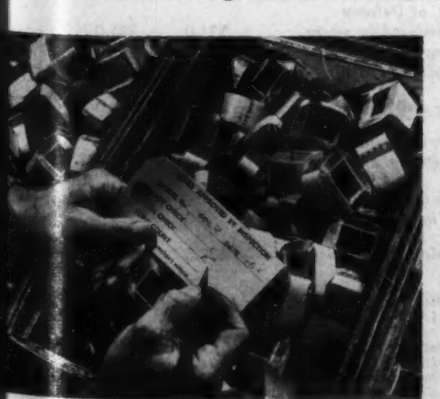
By actual count a G-E ballast receives 258 different tests and checks before packing and shipment! This painstaking care pays off to you in highly dependable operation, efficient lamp output, and long ballast life—it saves you valuable lighting dollars.

Next time you specify equipment for a fluorescent lighting installation, make sure you get the best...specify General Electric quality-controlled ballasts.

A G-E ballast tag or sticker on your fixture is proof that it's equipped with the best in ballast value. It's the easy way to be certain. For further information on G-E ballasts, write Section 401-9, General Electric Company, Schenectady 5, New York.

*Miss Fluorescent Ballast, G. E.'s Ballast Mascot

Copyright 1955, General Electric Company

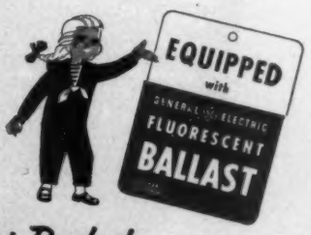


CLOSE INSPECTION of each component assures you of high quality ballasts, lower lighting costs and dependable performance.

Five more reasons why

GENERAL ELECTRIC IS YOUR BEST BALLAST VALUE

- EXCLUSIVE SOUND RATING SYSTEM
- LONGER BALLAST LIFE
- PRECISE LAMP-MATCHED DESIGN
- PROVED PRODUCT LEADERSHIP
- COMPLETE CUSTOMER SERVICES



Progress Is Our Most Important Product

GENERAL ELECTRIC

1956 BUDGET PROPOSES SMALL UP IN BUILDING

CONSTRUCTION ACTIVITY in the Federal civil and public works field will rise somewhat in 1955–1956 over current fiscal year operations if the recommendations of the President's 1956 budget are carried out by Congress.

While less money is anticipated for Federal aid to airports and assistance to school construction in "Federally impacted" areas, the larger programs of military public works, housing, and some smaller construction efforts in the Federal province are due for marked advances.

More money has been asked in Hill-Burton hospital construction, for example: $67.6 million compared with fiscal 1955 expenditures estimated at $53.4 million; and the President's new proposals for aid to school construction were expected to put considerably more work on architects' boards.

Would Spur Advance Planning

The Administration wants to enlarge the volume of planned public works, Federal and non-Federal alike. A strong effort will be made to stimulate the updating of non-Federal public works plans to provide a ready "shelf" for starting at once, should an emergency situation so dictate. The President has asked Congress to make available to him the balance of the $10 million it authorized last year for advance loans to states and cities for the planning of their non-Federal public works programs. Only $1.5 million of this amount was voted last year, allowing a very limited start on the effort. The small beginning, how-

(*Continued on page 286*)

CONSTRUCTION FUNDS (1956 BUDGET)

Estimates in millions

Agency	Fiscal 1955	Fiscal 1956
BLS—Commerce		
Revision of construction statistics	none	$1.0
Civil Aeronautics Administration		
Federal aid to airports	$22.0	11.0
Dept. of Health, Education and Welfare		
Federal aid to schools-impacted areas	77.0	24.0[1]
White House Conf. on Education	none	.2
Hill-Burton hospital construction	53.4	67.6
HHFA		
Reserve of planned public works	1.5	8.5
Urban planning grants	1.0	4.0
Capital grants for slum clearance	47.6	60.0[2]
PHA Annual contributions	67.7	87.0
Dept. of Defense		
Army public works	321.0	381.0
Navy public works	238.3	265.0
Air Force public works	857.2	1,028.3
Army civil functions	361.6	397.0
Dept. of Interior, Bur. of Reclamation	132.4	152.3
Dept. of State, Foreign Buildings Operations	4.0	9.2
Atomic Energy Commission	823.3	431.0

[1] *President proposed for later transmission to Congress an additional $70 million for fiscal 1955 appropriation.*

[2] *An increase in capital grant authority of $500 million is needed to provide effective commitment authority for the program, the Budget said. This anticipates $100 million for 1955, $200 million for 1956, and $200 million for 1957.*

Specify...

KWIK-WELD

AN EFFECTIVE, TESTED BOND for CONCRETE PLASTER and CEMENT

A long lasting, vermin proof BOND for new concrete, plaster or cement to old or to nearly any structural material. Architects and builders are insisting upon KWIK-WELD as a time, material and cost saving answer to bonding problems, especially with the new technique of bonding white coat plaster to green concrete, brick and other materials.

Foster D. Snell, Inc., world famous independent firm of consulting chemists and engineers, has completed extensive tests proving the superior tensile strength and shear strength of KWIK-WELD as a bond.

Write for the full and exhaustive Snell report on KWIK-WELD.

Chemical Products Co., Aberdeen, Md.
Send me full information about the uses and advantages of KWIK-WELD

NAME .....

FIRM .....

STREET .....

CITY .....STATE.....

Nesbitt

Reduces

School Mechanical System Costs

with the new Series Hot Water Wind-o-line System

Smaller piping and pumps required,
because this system uses less water to obtain the same heating capacity

Cost of installation reduced,
because a good portion of the piping is factory installed by Nesbitt

Need for pipe trenches eliminated,
because Wind-o-line is made to serve as supply and return piping for the Syncretizers

Nesbitt

Upgrades

(at no increase in cost to you)

School Heating and Ventilating Equipment

with new Hardtop Sunboard for Storage Cabinets
—durable laminated plastic available in five attractive colors;

new Colors for Nesbitt Schoolroom Equipment
—six beautiful new colors developed especially for classroom use;

new and better Air Intake for use with Syncretizer
—2⅛" thickness for prefabricated wall construction;
high strength permits use in masonry walls.

Write for further information or visit the
Nesbitt booth at N.E.A. Regional Conventions

Made and Sold by John J. Nesbitt, Inc., Philadelphia 36, Pa. Sold also by American Blower Corporation

Striking new school shows how to provide

Ideal indoor weather for your most modern



Why Honeywell Customized Temperature Control is a "must" in modern buildings

Providing modern comfort in a genuinely modern building presents no real difficulty if you approach your problem with genuinely modern control thinking—Honeywell Customized Temperature Control.

Take the case of the Cumberland Valley Joint High School, the Pennsylvania school that was picked as one of the twelve best designed and engineered schools in the U.S. last year.

Strategically placed Honeywell thermostats (see floor plan) compensate for every possible occupancy, exposure and use comfort factor. In doing so, they help make students more alert—and make possible better learning.

The *techniques* used in the Cumberland school can help you provide the Indoor Weather required for your clients' facilities—for a Honeywell Customized Temperature Control installation is *designed to fit the needs of the building and its occupants.* This applies not only to heating and cooling, ventilating and humidity control, but to industrial control as well.

Only Honeywell can provide true "customized" control. Because only Honeywell manufactures all three types of controls—electronic, pneumatic and electric.

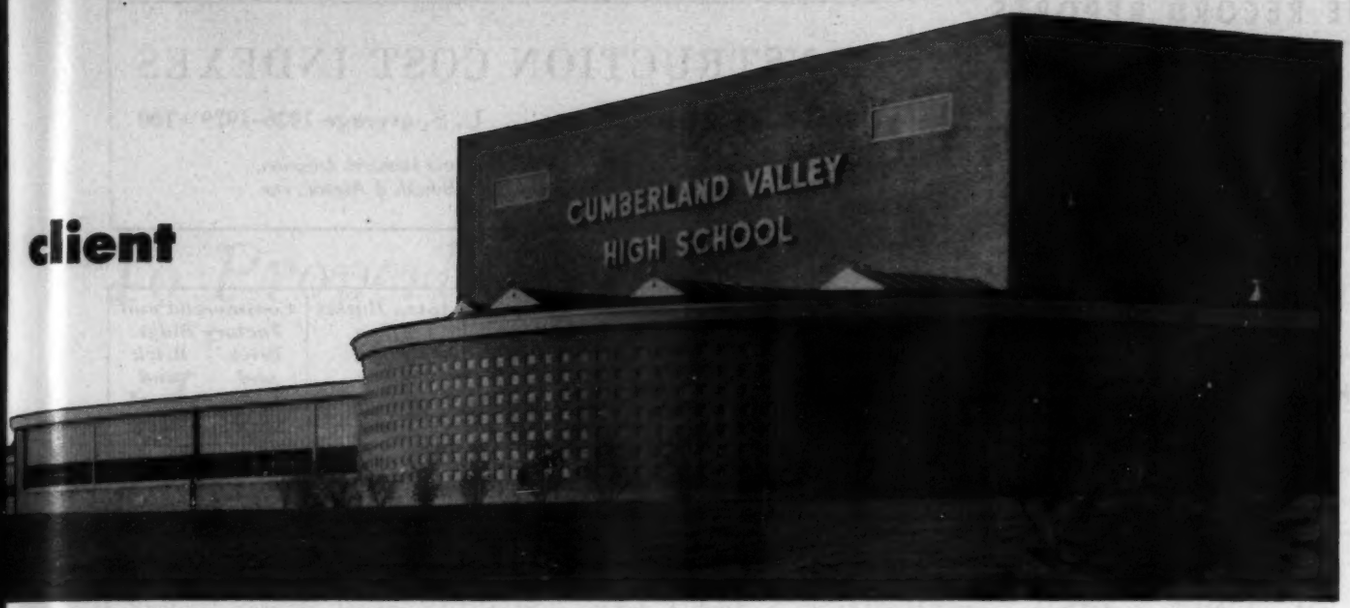


Exposure and occupancy comfort factors are the big control problems in classrooms where the aim is to keep children attentive. The generous use of glass makes the heating load vary greatly because solar radiation varies. How many students are in a room—and this varies, too—is quite important in determining the heating load. But with a thermostat in each classroom, control is precise—and students and teachers are always alert.

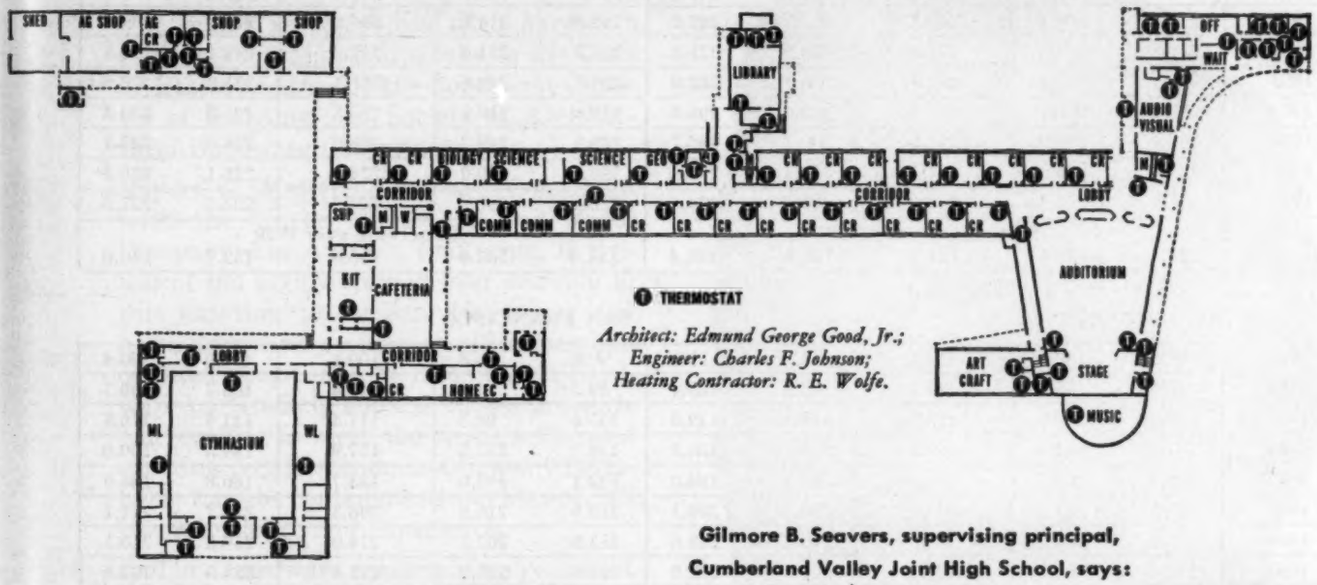


The "use" factor is the biggest problem in locker rooms. The heating-ventilating load shifts abruptly with the in-rush or exit of students. Thermostats easily meet this problem here, as well as variants of the "use" problem found in the school's gym, auditorium and cafeteria.

client



"Rambler" construction of Cumberland Valley Joint High School dramatically demonstrates need for Honeywell Customized Temperature Control.



Architect: Edmund George Good, Jr.;
Engineer: Charles F. Johnson;
Heating Contractor: R. E. Wolfe.

For comfortable, more productive temperature in new or existing buildings – of any size – specify Honeywell Customized Temperature Control

Whether it's a school, office, motel, hospital, factory—any building of any size—new or existing, Honeywell Customized Temperature Control can help meet your clients' heating, ventilating, air conditioning and industrial control problems.

You can give your clients more comfort and efficiency, and they'll save fuel, too.

For full facts on Honeywell Customized Temperature Control, and the economical Honeywell Periodic Maintenance Plan, call your local Honeywell office. Or write Honeywell, Dept. AR-3-29, Minneapolis 8, Minnesota.

Gilmore B. Seavers, supervising principal, Cumberland Valley Joint High School, says:

"It is our point of view that the thermal environment of a modern secondary school is a major factor in the interest of health, happiness and alertness of students and that the adequate and efficient control of a modern heating and ventilating system is therefore essential. Honeywell Customized Temperature Control has our sincere endorsement."



MINNEAPOLIS
Honeywell

Customized Temperature Control

112 offices across the nation

CONSTRUCTION COST INDEXES

Labor and Materials **U. S. average 1926–1929 = 100**

Presented by Clyde Shute, manager, Statistical and Research Division, F. W. Dodge Corp., from data compiled by E. H. Boeckh & Assocs., Inc.

NEW YORK

Period	Residential		Apts., Hotels Office Bldgs.	Commercial and Factory Bldgs.	
	Brick	Frame	Brick and Concr.	Brick and Concr.	Brick and Steel
1930	127.0	126.7	124.1	128.0	123.6
1935	93.8	91.3	104.7	108.5	105.5
1939	123.5	122.4	130.7	133.4	130.1
1946	181.8	182.4	177.2	179.0	174.8
1947	219.3	222.0	207.6	207.5	203.8
1948	250.1	251.6	239.4	242.2	235.6
1949	243.7	240.8	242.8	246.4	240.0
1950	256.2	254.5	249.5	251.5	248.0
1951	273.2	271.3	263.7	265.2	262.2
1952	278.2	274.8	271.9	274.9	271.8
1953	281.3	277.2	281.0	286.0	282.0
1954	285.0	278.2	293.0	300.6	295.4
Oct. 1954	285.4	278.0	294.1	302.3	296.7
Nov. 1954	285.8	278.5	294.2	302.3	296.8
Dec. 1954	285.8	278.5	293.1	301.6	294.6
	% increase over 1939				
Dec. 1954	131.4	127.5	124.2	126.0	126.4

ATLANTA

Period	Residential		Apts., Hotels Office Bldgs.	Commercial and Factory Bldgs.	
	Brick	Frame	Brick and Concr.	Brick and Concr.	Brick and Steel
1930	82.1	80.9	84.5	86.1	83.6
1935	72.3	67.9	84.0	87.1	85.1
1939	86.3	83.1	95.1	97.4	94.7
1946	148.1	149.2	136.8	136.4	135.1
1947	180.4	184.0	158.1	157.1	158.0
1948	199.2	202.5	178.8	178.8	178.8
1949	189.3	189.9	180.6	180.8	177.5
1950	194.3	196.2	185.4	183.7	185.0
1951	212.8	214.6	204.2	202.8	205.0
1952	218.8	221.0	212.8	210.1	214.3
1953	223.3	224.6	221.3	221.8	223.0
1954	219.6	219.1	223.5	225.2	225.4
Oct. 1954	220.2	219.7	225.0	226.6	227.1
Nov. 1954	220.3	220.0	224.3	226.1	226.7
Dec. 1954	220.9	220.6	225.1	226.7	227.3
	% increase over 1939				
Dec. 1954	155.9	165.4	136.6	132.7	140.0

ST. LOUIS

1930	108.9	108.3	112.4	115.3	111.3
1935	95.1	90.1	104.1	108.3	105.4
1939	110.2	107.0	118.7	119.8	119.0
1946	167.1	167.4	159.1	161.1	158.1
1947	202.4	203.8	183.9	184.2	184.0
1948	227.9	231.2	207.7	210.0	208.1
1949	221.4	220.7	212.8	215.7	213.6
1950	232.8	230.7	221.9	225.3	222.8
1951	252.0	248.3	238.5	240.9	239.0
1952	259.1	253.2	249.7	255.0	249.6
1953	263.4	256.4	259.0	267.6	259.2
1954	264.6	257.9	263.7	273.3	266.2
Oct. 1954	265.5	258.8	265.1	274.9	268.2
Nov. 1954	266.2	259.7	265.2	275.0	268.4
Dec. 1954	266.2	259.7	265.3	275.1	268.6
	% increase over 1939				
Dec. 1954	141.5	142.7	123.5	129.6	125.7

SAN FRANCISCO

1930	90.8	86.8	100.4	104.9	100.4
1935	89.5	84.5	96.4	103.7	99.7
1939	105.6	99.3	117.4	121.9	116.5
1946	159.7	157.5	157.9	159.3	160.0
1947	193.1	191.6	183.7	186.8	186.9
1948	218.9	216.6	208.3	214.7	211.1
1949	213.0	207.1	214.0	219.8	216.1
1950	227.0	223.1	222.4	224.5	222.6
1951	245.2	240.4	239.6	243.1	243.1
1952	250.2	245.0	245.6	248.7	249.6
1953	255.2	257.2	256.6	261.6	259.7
1954	257.4	249.2	264.1	272.5	267.2
Oct. 1954	260.6	252.6	266.8	276.0	270.3
Nov. 1954	260.0	252.0	266.0	275.4	269.7
Dec. 1954	260.6	252.6	266.9	276.1	270.6
	% increase over 1939				
Dec. 1954	146.7	154.3	127.3	126.4	132.2

The index numbers shown are for combined material and labor costs. The indexes for each separate type of construction relate to the United States average for 1926–29 for that particular type — considered 100.

Cost comparisons, as percentage differences for any particular type of construction, are possible between localities, or periods of time within the same city, by dividing the difference between the two index numbers by one of them; i.e.:

index for city A = 110
index for city B = 95
(both indexes must be for the same type of construction).

Then: costs in A are approximately 16 per cent higher than in B.

$$\frac{110-95}{95} = 0.158$$

Conversely: costs in B are approximately 14 per cent lower than in A.

$$\frac{110-95}{110} = 0.136$$

Cost comparisons cannot be made between different types of construction because the index numbers for each type relate to a different U. S. average for 1926–29.

Material prices and wage rates used in the current indexes make no allowance for payments in excess of published list prices, thus indexes reflect minimum costs and not necessarily actual costs.

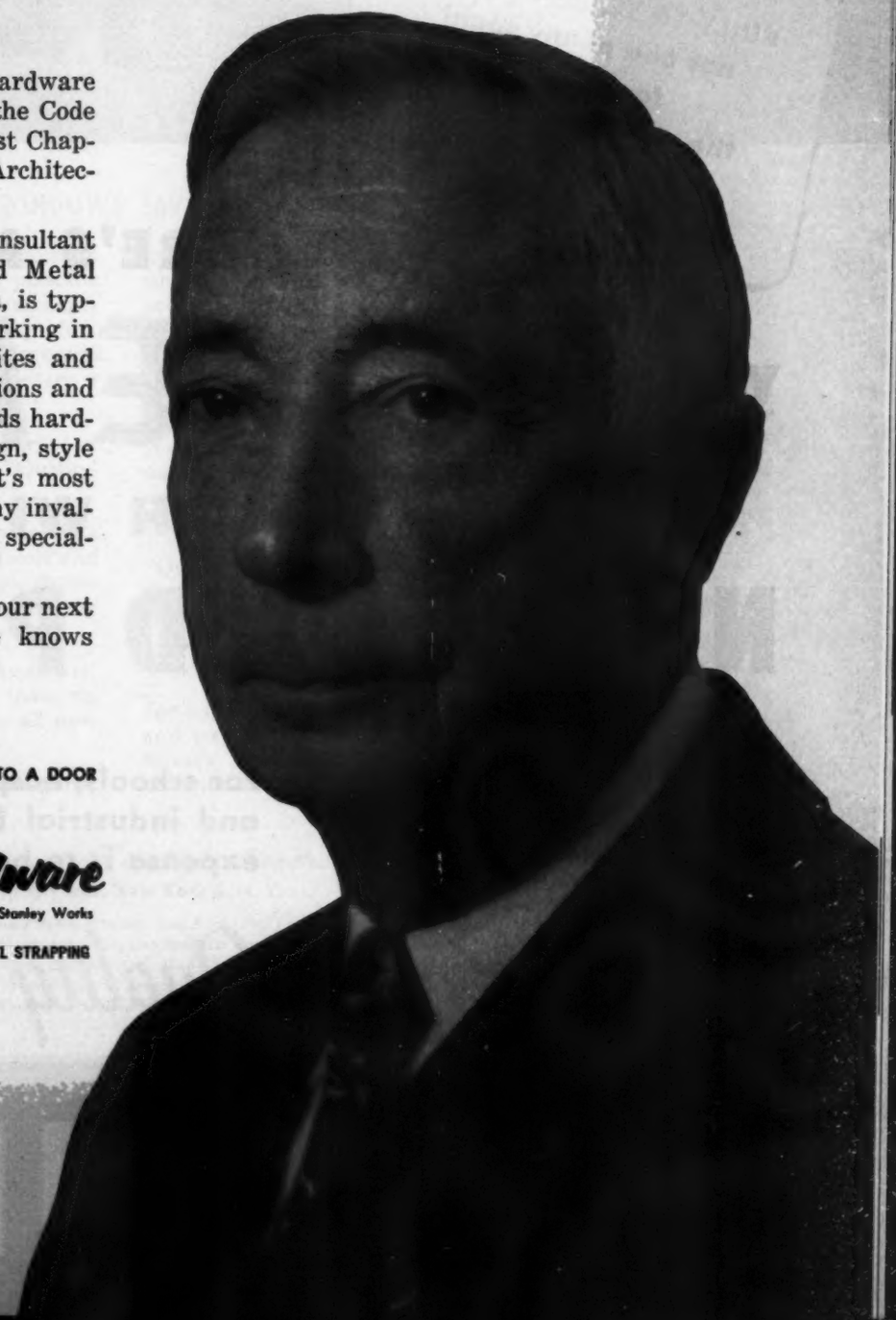
These index numbers will appear regularly on this page.

"To Properly And Impartially Analyze Hardware Specifications..."

The major responsibility of a hardware consultant is defined this way in the Code of Ethics adopted by the Southwest Chapter of the American Society of Architectural Hardware Consultants.

Rupert C. Mester, Hardware Consultant with the Union Hardware and Metal Company, Los Angeles, California, is typical of the highly trained men working in this exacting profession. He writes and helps architects prepare specifications and contract documents, he recommends hardware particularly suitable in design, style and quality to meet the architect's most exacting requirements, and in many invaluable ways he contributes from his specialized knowledge and experience.

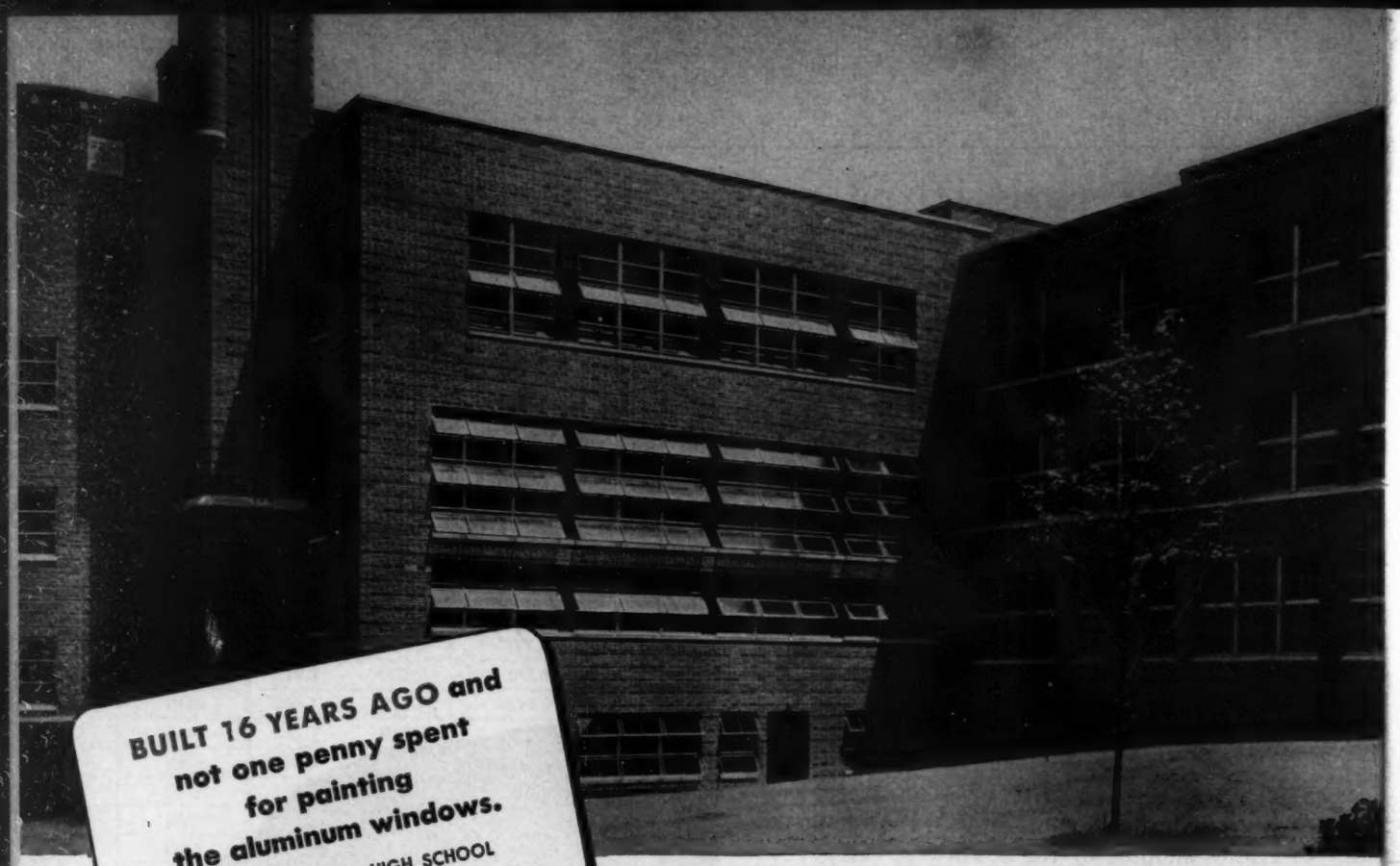
Call in a hardware consultant on your next job. He's a specialist... no one knows hardware better.



REMEMBER THREE HINGES TO A DOOR

STANLEY Hardware
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HARDWARE • TOOLS • ELECTRIC TOOLS • STEEL • STEEL STRAPPING



BUILT 16 YEARS AGO and not one penny spent for painting the aluminum windows.

BLOOMFIELD JUNIOR HIGH SCHOOL
Bloomfield, N. J.
Architect: Starrett & Van Vleck

HERE'S MORE PROOF

YOU CAN SAVE MONEY

WITH WINDOWS THAT

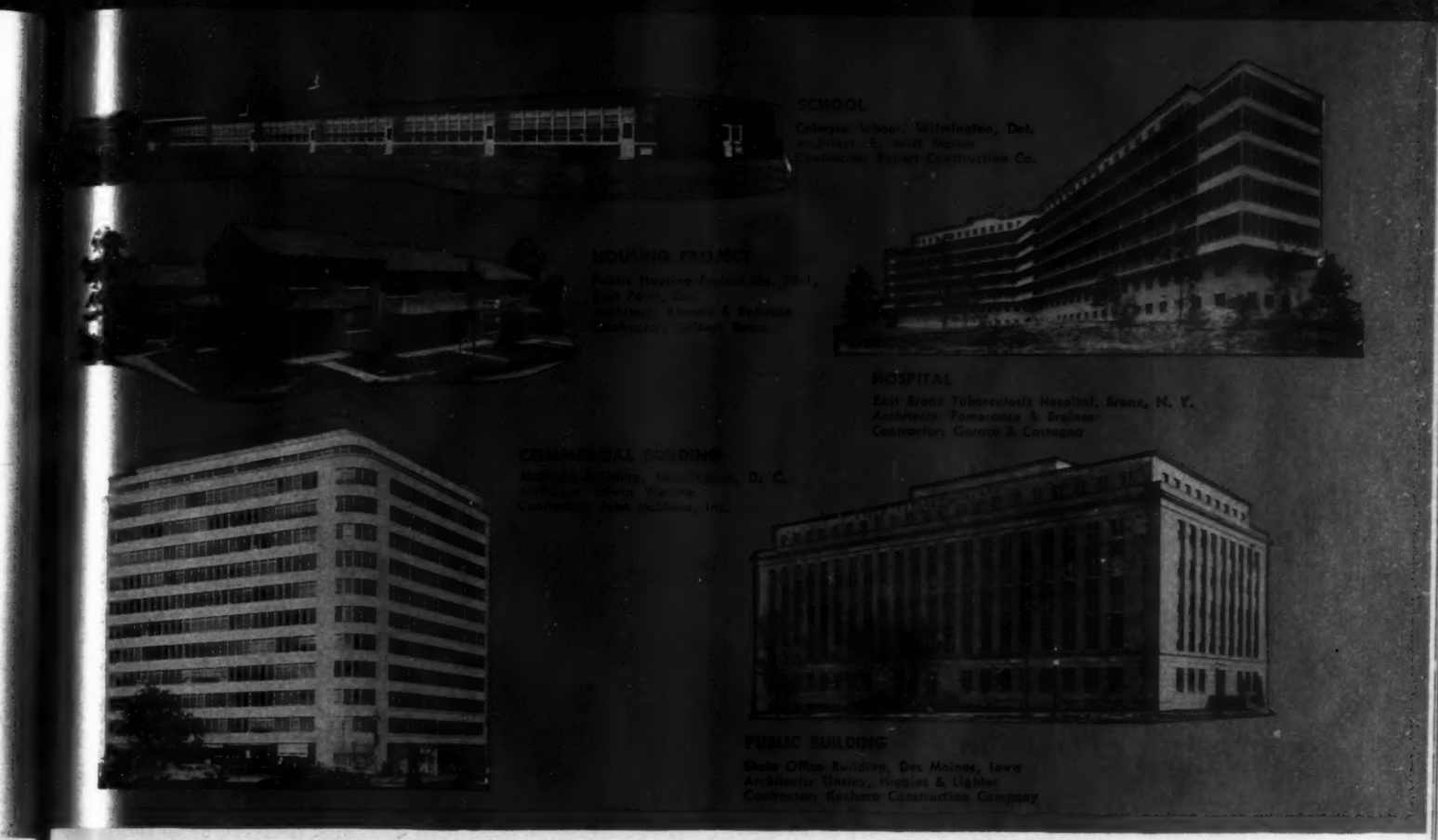
NEVER NEED PAINTING!

For schools, hospitals, apartments, commercial and industrial buildings, where maintenance expense is to be kept at a minimum, insist on



Quality Approved

ALUMINUM



SCHOOL
Colonial School, Wilmington, Del.
Contractor: Rupert Construction Co.

HOUSING PROJECT

HOSPITAL
East Bronx Tuberculosis Hospital, Bronx, N. Y.
Architects: Pomeranze & Breines
Contractor: Geraco & Castagna

COMMERCIAL BUILDING

PUBLIC BUILDING
State Office Building, Des Moines, Iowa
Architects: Tinsley, Higgins & Lighter
Contractors: Kacharo Construction Company

EXPERIENCE SHOWS... ALUMINUM WINDOWS SAVE MANY DOLLARS ON PAINTING ALONE

Have you considered recently how much it costs to maintain an average 4' 0" x 6' 9" window by periodic painting? Reports of maintenance superintendents for several large commercial buildings say their records show it costs from $2.00 to $3.00 (average $2.65) per window per year when painted every 5 years on outside and every 3 years on inside.

Now, just think how much you save over a period of 30 or 40 years when your new building has "Quality-Approved" aluminum windows.

Experience in all types of buildings—schools (like the one shown on the opposite page), hospitals and other buildings—erected 15 to 20 years ago, shows that not one penny was ever required for painting the aluminum windows.

That's why today, more and more architects as well as maintenance-conscious building owners insist on "Quality-Approved" aluminum windows for all new buildings.

Aluminum windows, whether they be double-hung, casement, sliding, projected or awning type, are the only practical, reasonably-priced windows that *never* require painting... that cannot rust or rot, warp or swell... that retain their trim, modern-looking appearance for the life of the building.

A WORD OF CAUTION—Remember, that only aluminum is rustproof through and through. Mere surface protection against rust is not enough. Wear, unintentional scratches in delivery or installation may nullify any protective surface coating and soon require painting.

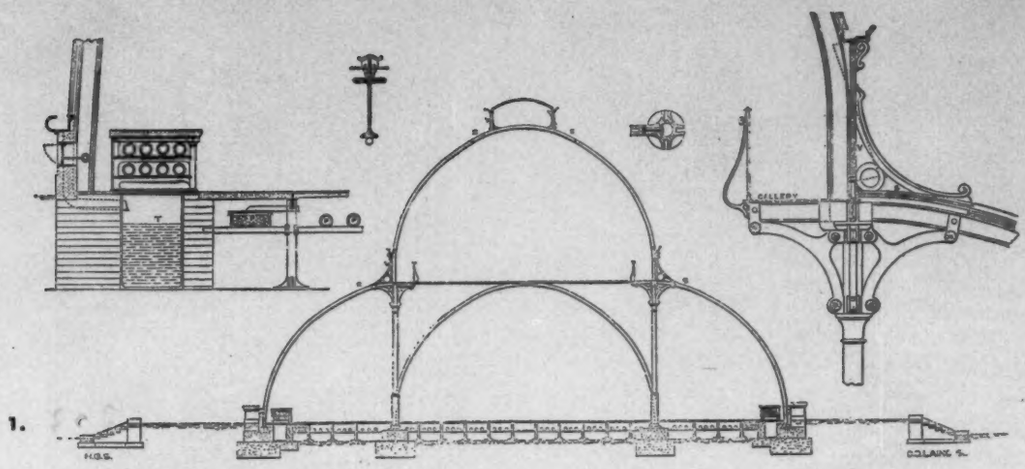
"Quality-Approved" aluminum windows are available through many manufacturers in sizes and styles that fit any exterior design treatment. For your protection and full satisfaction, insist on the "Quality-Approved" Seal when you specify or OK specifications.

For a copy of our 1955 window specifications book and names of approved manufacturers, consult Sweet's Architectural Catalog (Section 16a/ALU) or write direct to Dept. AR-3.

Aluminum Window Manufacturers Association
74 Trinity Place, New York 6, N. Y.

MEMBERS: Alcasco Products, Inc., Detroit, Mich. • Aluminum Home Products Co., Knoxville, Tenn. • The Wm. Bayley Co., Springfield, Ohio • Ceco Steel Products Corp. *(Sterling Aluminum Window Division)*, Chicago, Ill. • Cupples Products Corp., St. Louis, Mo. • Fentron Industries, Inc., Seattle, Wash. Michael Flynn Mfg. Co., Philadelphia, Pa. • General Bronze Corp., Garden City, N. Y. • Metal Arts Mfg. Co., Inc., Atlanta, Ga. • Reynolds Metals Co. *(Parts Division)*, Louisville, Ky. • The F. C. Russell Co. *(Aluminum Division)*, Bristol, Pa. • J. S. Thorn Co., Philadelphia, Pa. • Universal Window Co., Berkeley, Calif. • Ware Laboratories, Inc., Miami, Fla. • Windalume Corp., Kenvil, N. J.

WINDOWS



1.

INVENTION AND ARCHITECTURE IN VICTORIAN ENGLAND

Early Victorian Architecture in Britain. By Henry Russell Hitchcock. Yale University Press (New Haven, Conn.) 1954. 635 pp, 522 illus. 2 vols. $20.00*

BY VINCENT J. SCULLY JR.

Mr. Scully, who teaches history of architecture at Yale, was awarded the book award of Society of Architectural Historians in 1953 for The Natural Heritage of Newport, Rhode Island, *Harvard*, 1952.

THIS MONUMENTAL WORK deserves the serious consideration of every architect who is practicing today. The contemporary architect will not find the book easy to read or to digest. He will not discover in it any neatly defined set of principles or forms which can be readily applied to his own work. Instead, he will be presented with the first complete study of all the complexities and problems which began to face architects at the dawn of the modern age. The present work makes it abundantly clear that this is precisely what the early Victorian period was: the efflorescence of an entirely new phase in the history of the western civilization, an era conceived at an unknown scale and wrestling for the first time with the contemporary problems of advanced industrialism and mass urbanism. The period had to cope, also for the first time, with the concomitant problems of spiritual satisfaction and formal order in a world which had in effect broken loose from its tradition, but to which archaeology and scholarship had opened up most of the past.

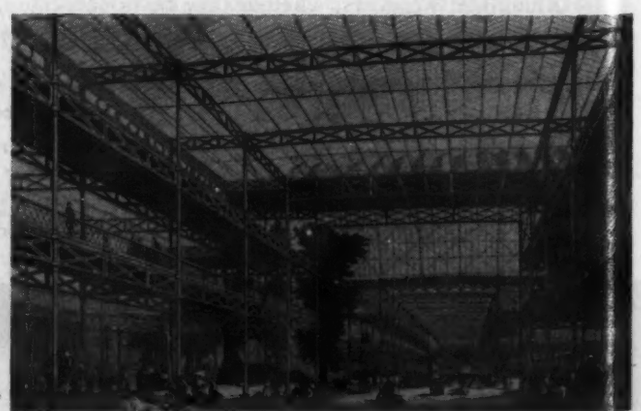
Professor Hitchcock has chosen to present this mighty, disparate, and confused period in all its fullness and complexity. He has obviously rejected many of the specious characterizations of the period which have been offered during the recent years, and he explicitly refuses to extract any precise scheme of order from its events. He is not at all sure that we can as yet be certain what its "constituent facts" really were. Thus his book is hard to read, but it repays the kind of attention it deserves, that is: serious study. Everything of the period is in it: Houses of Parliament, royal palaces, jails, factories, row housing, country houses, prefabrication, banks, warehouses, bridges, railroad stations, churches, the Crystal Palace and its largely stillborn offspring. The architects and the critics are there as well: Pugin, Ruskin, Paxton, Brunel, Butterfield, Barry, Cockerell, Street, Owen Jones, and many more.

The complexity of people and events to be found in the book makes any brief evaluation of it difficult. Yet, out of that complexity, certain large patterns do emerge, and their importance may be a clue to a tentative judgement of the value of the book as a whole. (1) Faced with problems such as railroad stations and vast bridges which were literally insoluble on old terms, some architects of the early Victorian period were instantly capable of producing new and expressive forms out of the problem itself and the materials available, while others were unbelievably adroit at adapting old forms to the new uses. Contemporary architects should note that

(*Continued on page 48*)



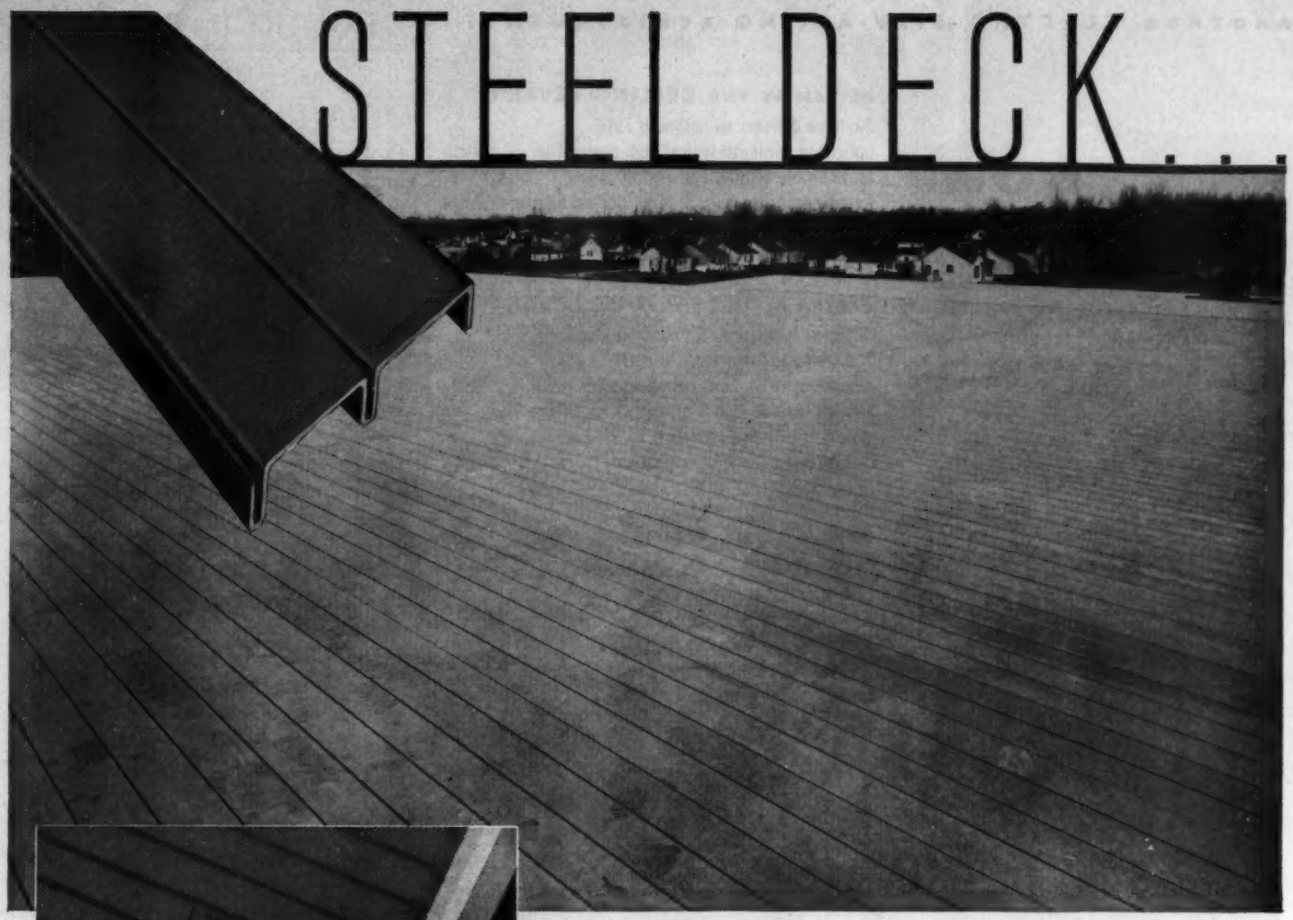
2.



3.

**Professor Hitchcock was awarded the fifth annual book award by the Society of Architectural Historians for this work.* (*See NEWS page 16.*)

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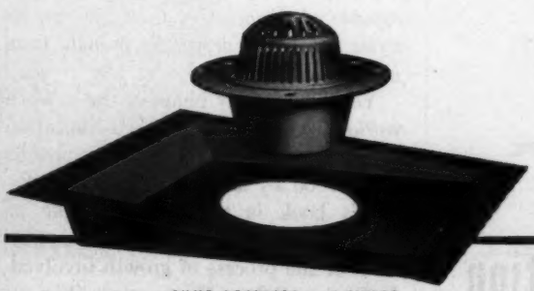
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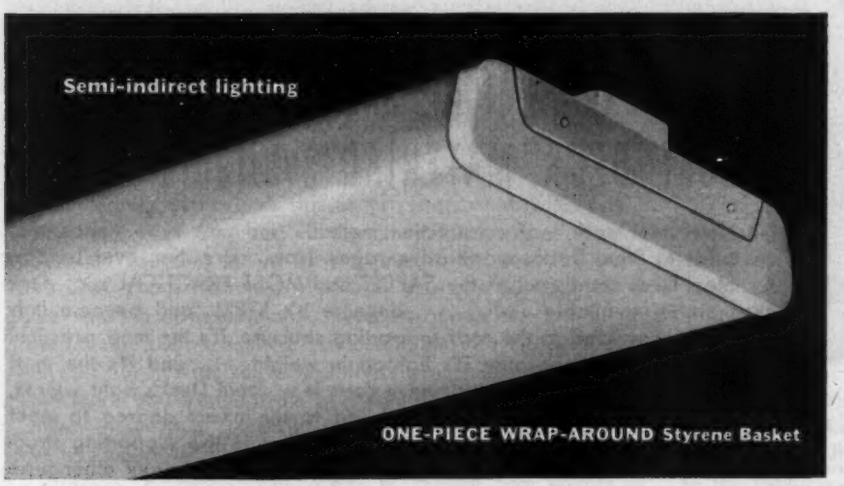
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(*Continued from page 46*)

Professor Hitchcock's study reveals how important architects were in the development of metal construction — at least as important as engineers. (2) Faced with problems which were conceivably soluble in terms of known forms, the architects and critics of the period gave serious and sometimes frenzied consideration to those particular forms out of the past which seemed programmatically most appropriate. For churches: Gothic forms, evolving from the revival of intense religious interest which was one aspect of the age, and arrived at with considerable soul searching through Pugin, Ruskin and the Camdenians. For large city clubs, the male social center and refuge of an urban world: the Renaissance palazzo, adapted by Barry. For large country houses: the "Jacobethan," as Hitchcock calls it, considered appropriate for the new industrial rich of the nineteenth century as it had been for the new rich of the late sixteenth. For banks and industrial buildings: the more "timeless," massive sculpture of Hellenic forms, most congenial to Cockerell.

To witness, through Hitchcock's meticulous coverage of the field, the struggle of architects to equate specific forms with specific programs is slowly to become aware of the true vastness of the intellectual, spiritual, and formal process by which the new forms of modern architecture were finally to evolve; and this experience can make us distrustful of easier and more facile explanations of the phenomenon. Hitchcock clearly states the limitation of the early Victorian architects:

"*Concepts of pure architectural form, such as are almost always necessary to aesthetic innovators, were generally ignored as mere Platonic abstractions: The forms of architecture were considered incapable of dissociation from the specific styles which had originally brought them into being.*"

Yet in this early phase of the modern world's search for itself such limitation is comprehensible, and should by now be understood by us. The virtue of Hitchcock's book is that it can make us understand the scope and the implications of the process of growth involved. In Barry's Palazzi, for example (Fig. 2), we may sense, as yet undetached from literalistic revival, the clear, cubic, urban forms of Mies van der Rohe and Philip

(*Continued on page 336*)



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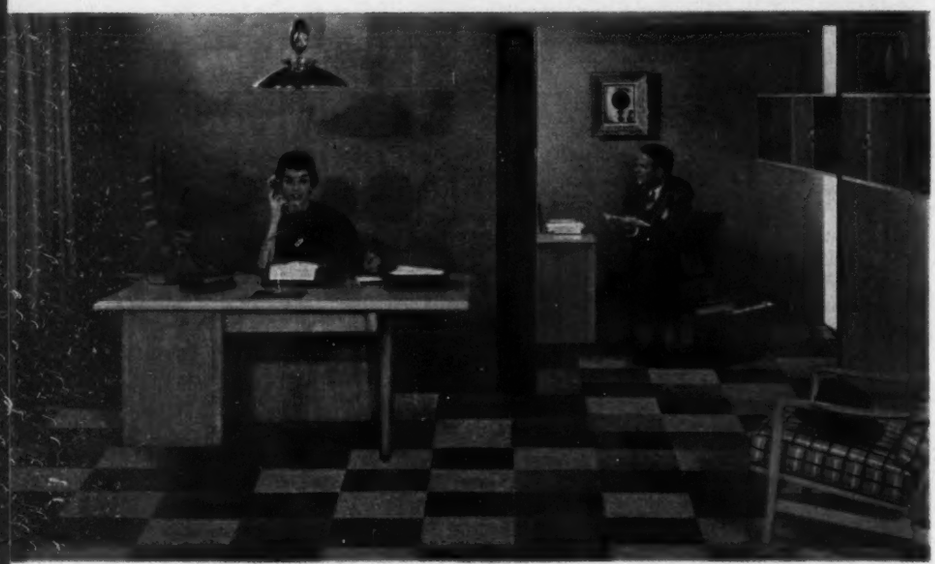
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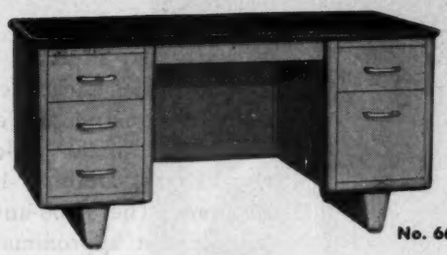
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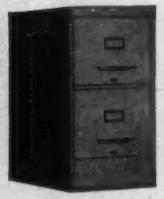
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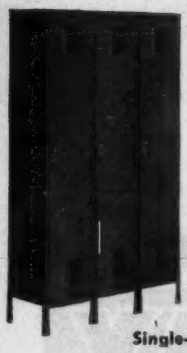
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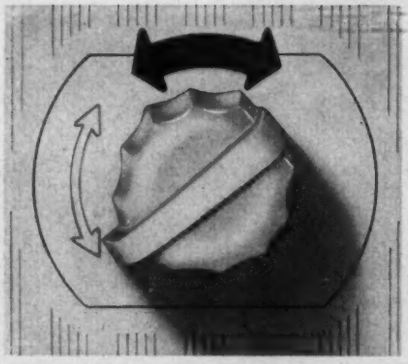


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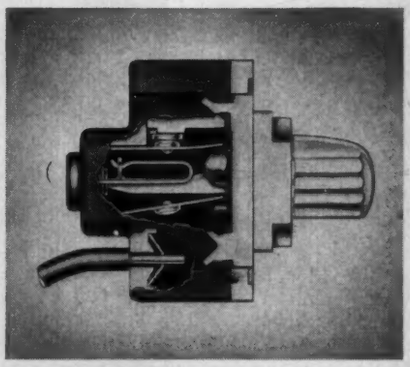
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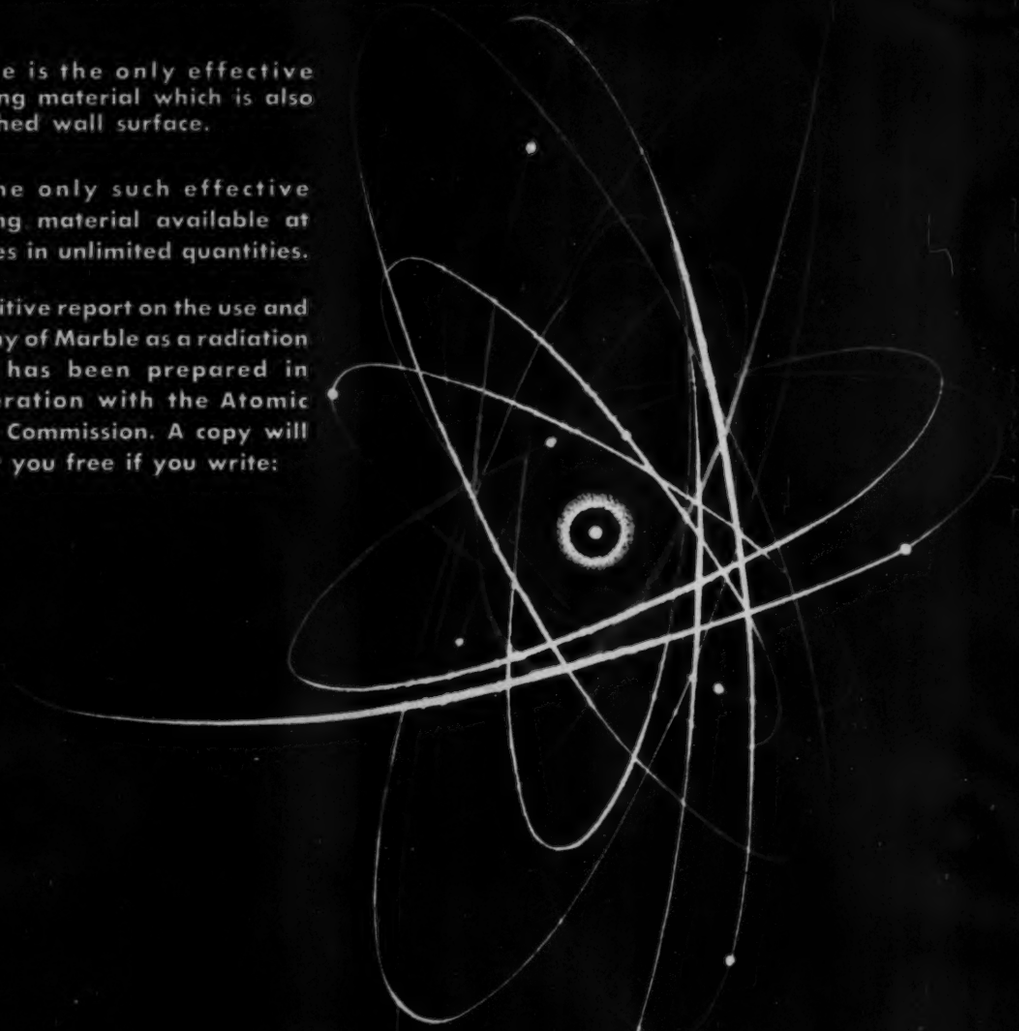
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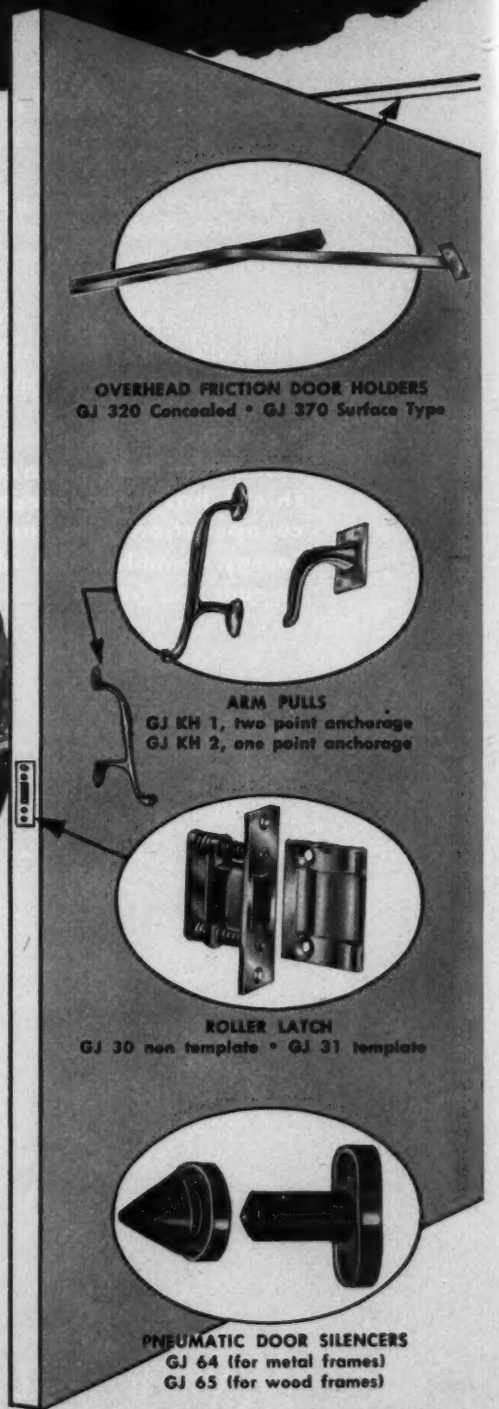
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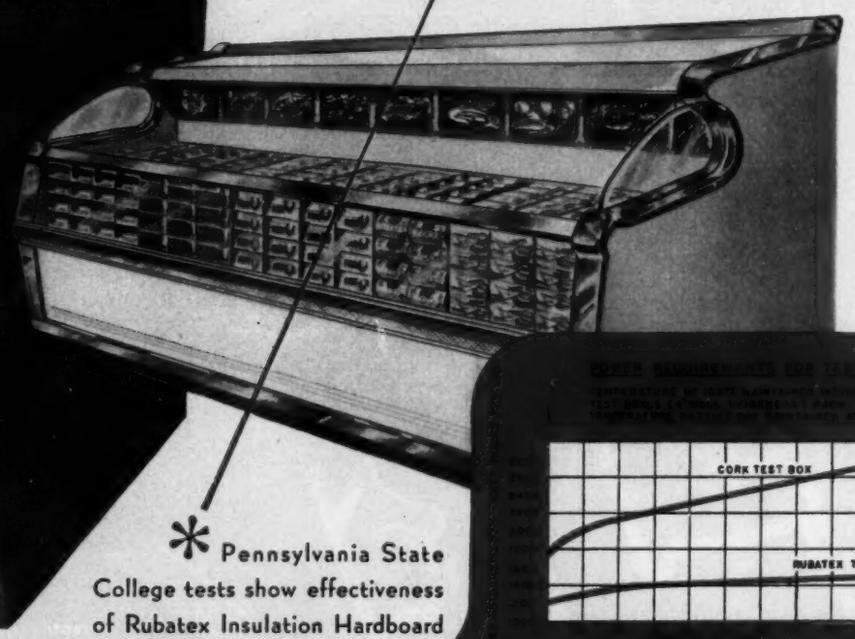

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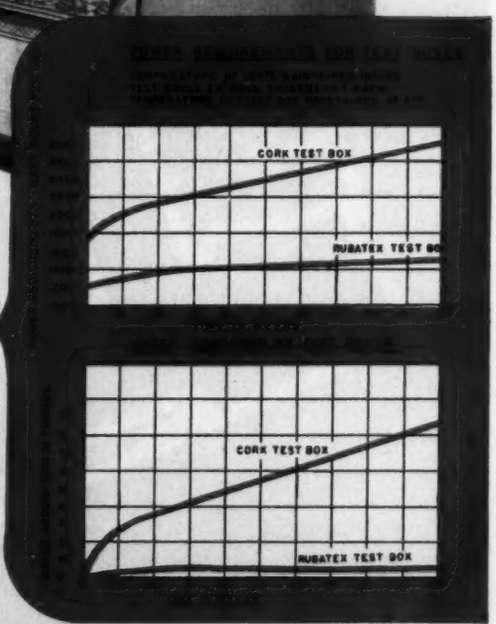

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Concealed Fastenings



This versatile group of Pittco® mouldings offers handsome rigid construction for framing windows and doors. Practically all fastenings are concealed. The mouldings, which neatly cover steel or wood cores, are extruded in several design combinations and are beautifully finished. Ask our nearest branch or distributor for further information.

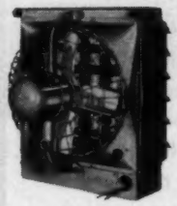
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PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED



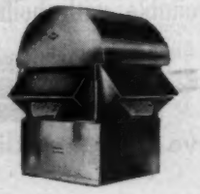
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The complete line—steam, hot water, gas or electric—with capacities ranging from 18,600 to 286,000 BTU.



ILG Centrifugal Fans
Designed for a wide variety of pressure and volume requirements — certified capacities ranging from 374 CFM to 116,400 CFM.



ILG Power Roof Ventilators
Long-lasting, quiet, easy to install, leak-proof—provide efficient ventilation independent of wind and weather.



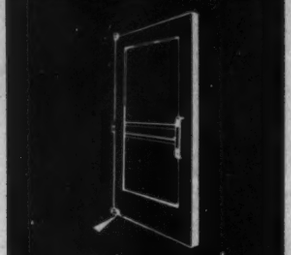
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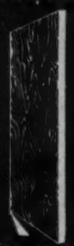
Get this Free Catalog now!
Here's the information you should have before planning your ventilation requirements. ILG's new Propeller Fan Catalog is your complete and authoritative guide to better ventilation. Write for your catalog No. 151 today.



ILG ELECTRIC VENTILATING CO.
2820 N. Pulaski Road, Chicago 41, Illinois



entrance and vestibule doors



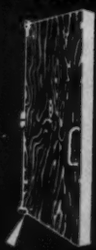
patient room doors



utility and supply room doors



operating-room doors



x-ray room doors



toilet room doors

All "*working*" hospital doors should close automatically with RIXSON concealed closers



Weiss Memorial Hospital Interiors, Chicago.

LOEBL, SCHLOSSMAN and BENNETT, architects, Chicago.



RIXSON concealed closers are firmly embedded in the RIGID FLOOR

Where patients, visitors and a busy staff pass through doors . . . a safe, controlled door closing action is important. Every "working" hospital door, including entrance and vestibule doors, utility room, toilet, and patient room doors—should be equipped with RIXSON floor type closers. The doors will open with a light, easy push and then close gently, quietly, and automatically. RIXSON Closers are out of the way, firmly concealed in the rigid floor where they cannot gather dust or dirt and cannot obstruct the door opening. No unsightly arms or mechanism exposed.

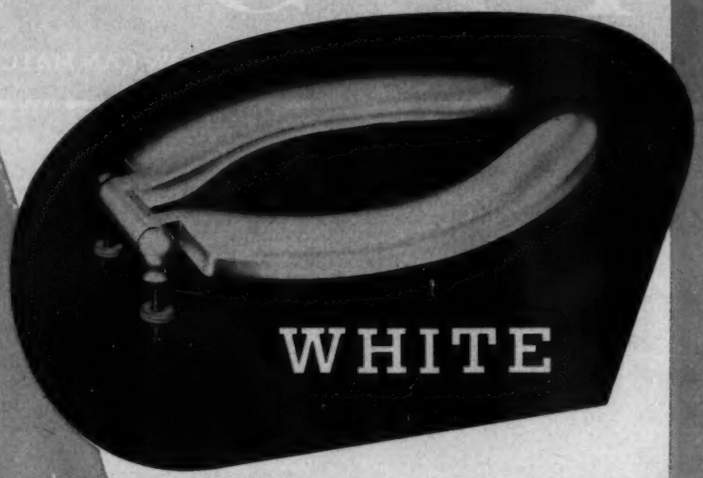
There's a silent, automatic RIXSON Closer to suit every interior and exterior door requirement — from the lightest patient room door to the extra heavy X-ray room door.

Most RIXSON Closers available with built-in hold-open.

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Institutional and Industrial SEATS

They Stay White For A Lifetime of Normal Use—Never Need To Be Replaced!

Now you can specify *white* seats for all schools, hotels, factories . . . all public buildings, without fear of discoloration. Independent research laboratory tests prove that New Olsonite White Shock-Proof Seats will not yellow—even after years of service. These tests also show that Solid Olsonite Shock-Proof Seats have *five times the impact strength of ordinary solid seats.*

New Solid Olsonite Shock-Proof Seats are made of one material—molded into one piece. Even deliberate abuse won't crack, chip or discolor them.

All Olsonite Industrial, Commercial and School Seats are now of shock-proof construction. Specify the seat that STAYS WHITE—New Solid Olsonite Shock-Proof Seats.



Solid Olsonite Shock-Proof Seats (#1050 White) will be installed throughout the outstanding COMMUNITY HIGH SCHOOL in North Chicago, Illinois.

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SOLID Olsonite

SHOCK-PROOF SEATS

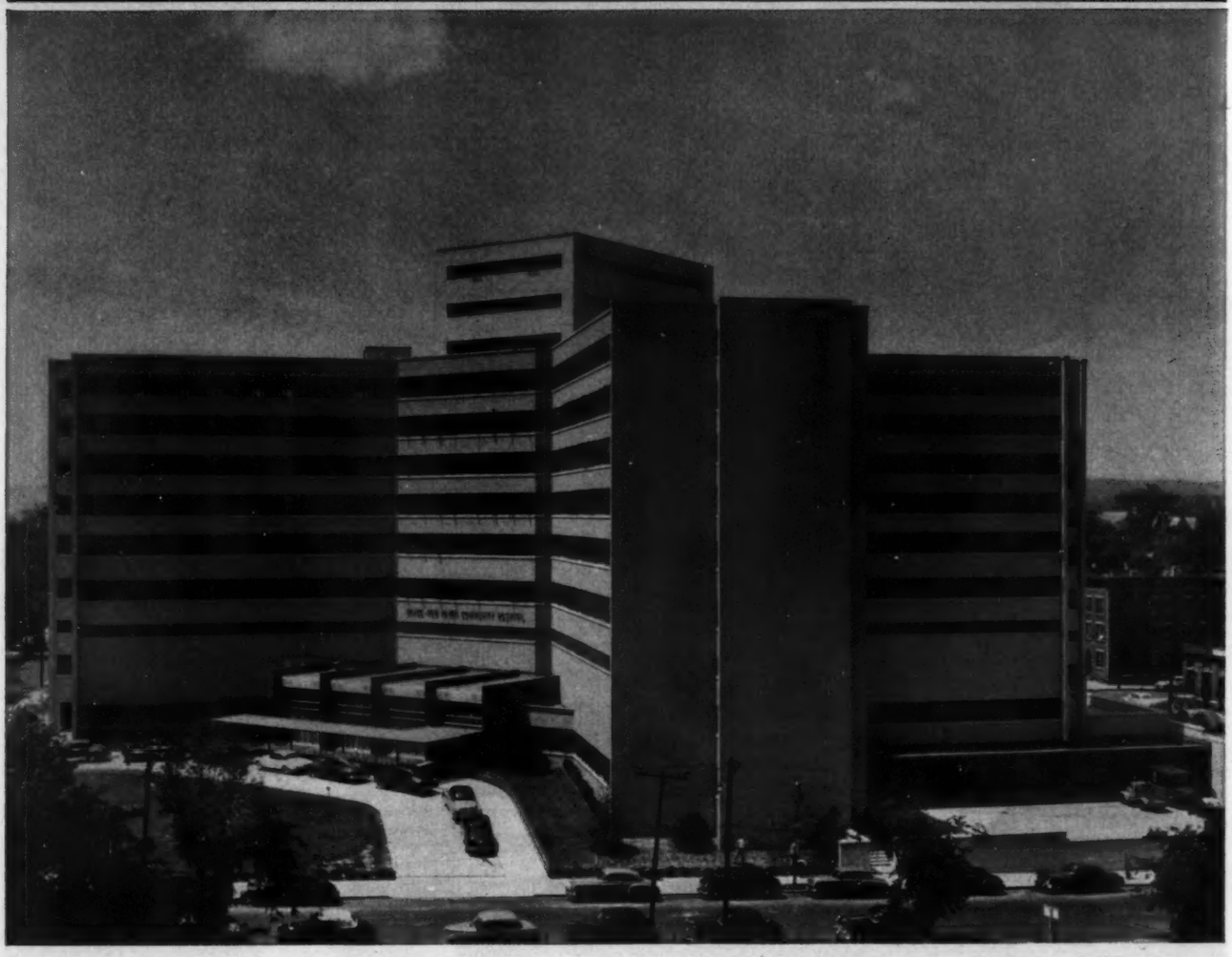
Olsonite's complete catalog is available on request. Please write on your letterhead to:

SWEDISH CRUCIBLE STEEL COMPANY
Plastics Division, 8561 Butler Avenue, Detroit 11, Mich.

A-2-54

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Good planning has created rooms with the feeling of spaciousness and abundant, easily-controlled, natural light. This, draft-free ventilation and easy cleaning from within benefit the patients and the hospital staff alike. Architects specify Hope's Custom Steel Windows to obtain the utmost freedom in planning and also to obtain superior quality for the owner.

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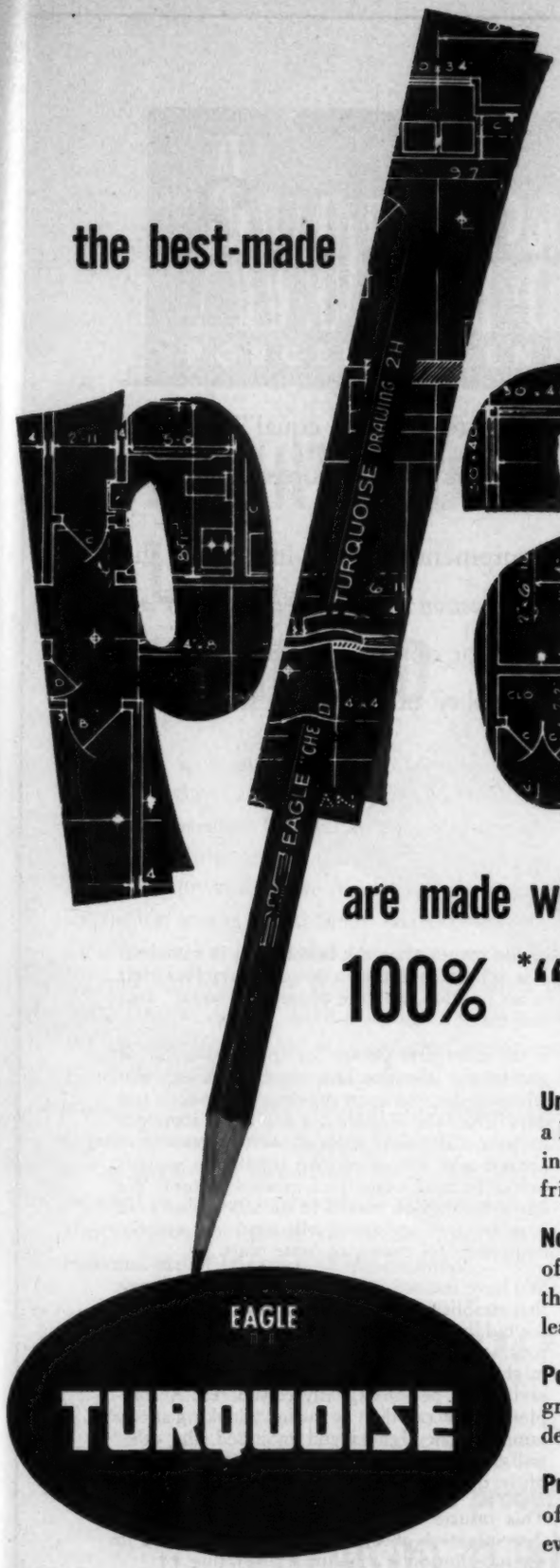
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"or equal"...?

Published with the permission requested of Maguolo & Quick, prominent St. Louis Architects, this resume of their policy with respect to the "or equal" phase of specifications, is of widespread interest to Architects and Contractors alike.

"A paragraph allowing substitutions of lighting equipment has been inserted in the electrical specifications and so worded to *dispel any notion that the specifications are restrictive.* The procedure outlined in this paragraph for obtaining approval of any substitutions protects the owners against the possibility of the basic standard of quality being subverted.

Our experience has taught us:–

(a) The electrical bids should be uniform and the standard of quality of lighting equipment should be established in the specifications. This insures all electrical bidders being on an equal basis.

(b) Electrical bids can be distorted when some bidders are allowed, or find it necessary, to play with the lighting fixtures. Such a bidder's assumption of a thing to be equal, and the pressuring for approval, many times hides the value and the proper cost credit from being passed along to the owner. This makes for a very unhappy ending.

(c) The standards set up in the specifications have evolved through our experience from project to project. We have learned one thing positively: that the lighting equipment business, unfortunately, is unique in that too much equipment is ""sold" on the basis of catalog illustrations and not on the true merit of quality of design, construction, performance and ease of maintenance.

(d) If a commonly used and rather insidious phrase "or equal" is put in the specifications, we have found that many electrical bidders *presume* to judge what is equal to what is wanted by the owner in the way of quality. In effect, some bidders redesign the project to their liking and at a profit to themselves and the utter dissatisfaction of the owner after the installation is complete. It is difficult to combat a thing that resolves itself to an opinion, and the phrase "or equal" does just that.

(e) If the more firm phrase "or approved equal" is put in the specifications, we have found that salesmen descend upon the office in droves a few days before the bids are due and try to stampede us into a decision *without an opportunity to consult with the owner.* An intelligent analysis cannot be made under such pressure of time. We know such action results in the *distress to us as your designer* and to *you* who must live with the equipment for twenty or more years.

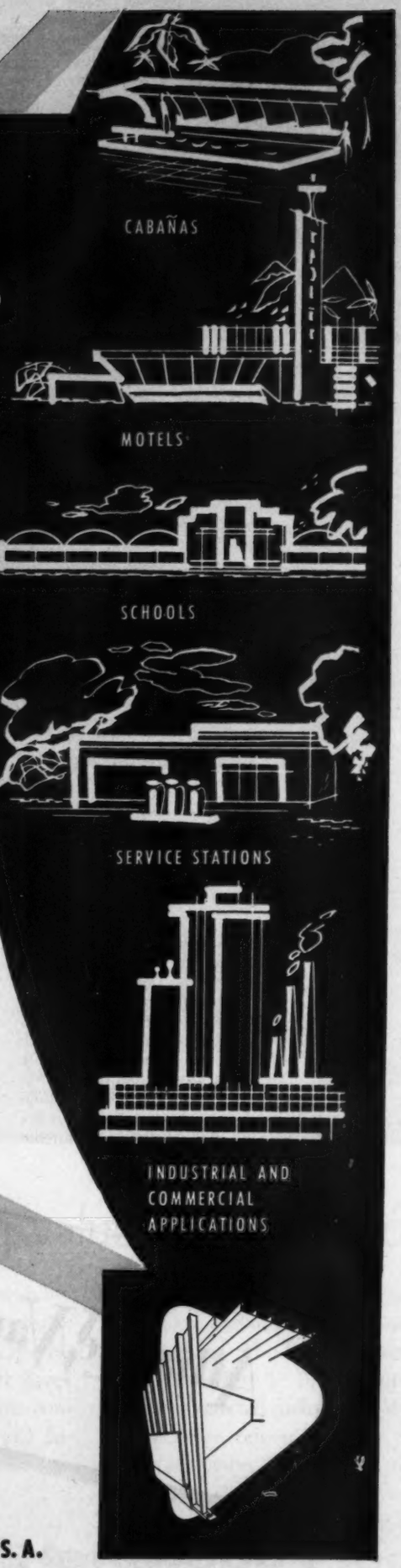
(f) We have learned that the best procedure is one that established the standard of quality as a basis for bidding. Then, after the rush of bidding and contract letting is over, any substitutions that might be *beneficial to the owner* and result in a saving can be intelligently considered. A complete review can then be made by looking at two samples: one lighted and mounted, the other unlighted and displayed for a deeper analysis of the quality of fabrication and finish.

(g) This insures a painless, positive and clear-cut determination of whether the saving offered in the substitution is a real or a false value."

This advertisement is sponsored by Day-Brite Lighting, Inc. of St. Louis in the interests of clients of Architects and Engineers.

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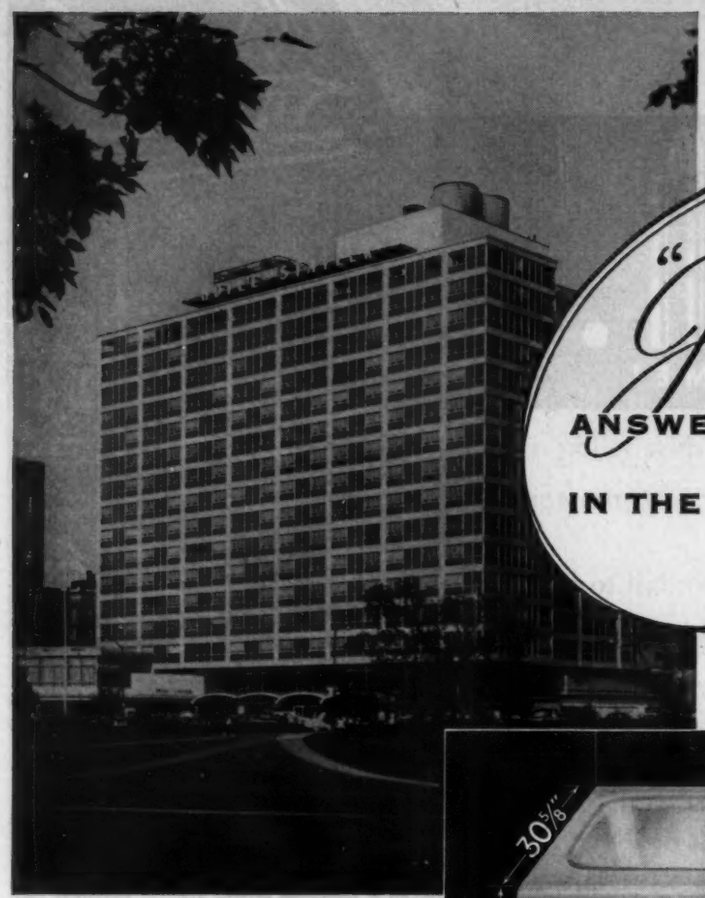
There's a new and exciting architectural product on the market today, and its name is AVONCRAFT. AVONCRAFT Porcelain Enamel, with the strength of steel, the beauty, cleanliness and durability of porcelain. Load-Bearing Walls provide inner finished walls, structural ribs and insulation space. Load-Span Decking provides high safety factor over long unsupported areas, smooth ceilings and insulated roof. Curtain Walls are engineered for flexibility of architectural design. Like a sculptor with a versatile material, the architect can mold this amazing maintenance-free product to fit the modern design of schools, motels & cabañas, service stations, and to industrial and commercial applications of many types. Entire buildings can be designed of this product, which is "as modern as tomorrow" on the architectural scene. Or, it can be used as a liner in industrial applications where its tough beauty (impervious to fumes, chemicals, and dirt) and maintenance-free features are of paramount importance...

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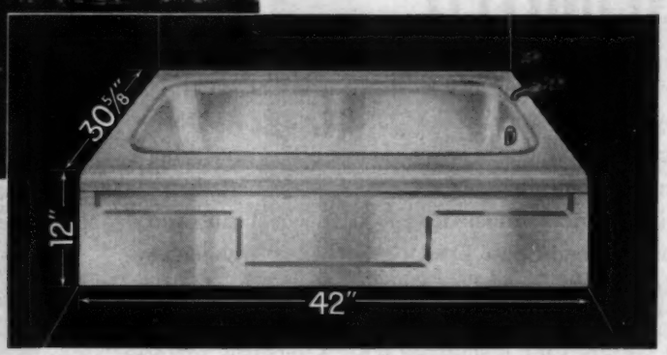
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ALLIANCEWARE

"Junior" Bathtubs

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The AllianceWare Junior has all the fine quality of every AllianceWare tub with wide seat rim; patented grab rail construction; leakproof flange; choice of 5 stainproof colors and white. Size—42″ long, 30⅝″ front to back, 12″ high—makes this an unusually suitable tub where space is limited. As a shower receptor the Junior far exceeds in roominess and convenience the ordinary shower stall. Write for complete dimensions and installation diagram.

The planning behind the new Hartford Statler is a fascinating story of the most careful research into what people—guests and employees—do or like to do in a hotel. Included among the great multitude of detailed studies were the shortest plumbing runs and the most efficient minimum bath requirements.

The many insurance companies in Hartford conduct training courses of several weeks duration. "Students" demand minimum-cost accommodations.

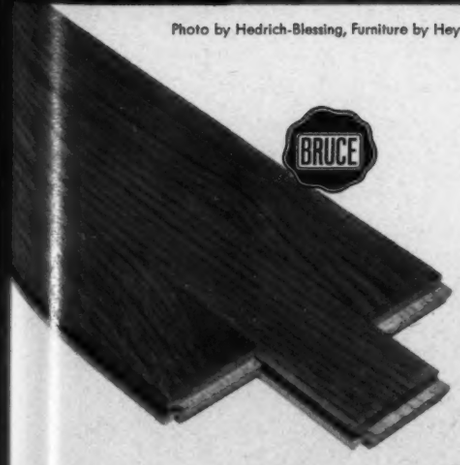
To provide these accommodations six minimum rooms or "roomettes" in addition to the regular size rooms, were planned for each floor of this hotel that research built. Bathtubs of ordinary dimensions were too large for the "roomettes." But AllianceWare "Junior" tubs—42 inches long—met the conditions ideally. So every Hartford Statler roomette—78 in all—is fitted with an AllianceWare Junior tub.

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PORCELAIN ON STEEL

ALLIANCEWARE, INC. • Alliance, Ohio
Plants in Alliance, Ohio and Colton, California
Bathtubs • Lavatories • Closets • Sinks



Photo by Hedrich-Blessing, Furniture by Heywood-Wakefield



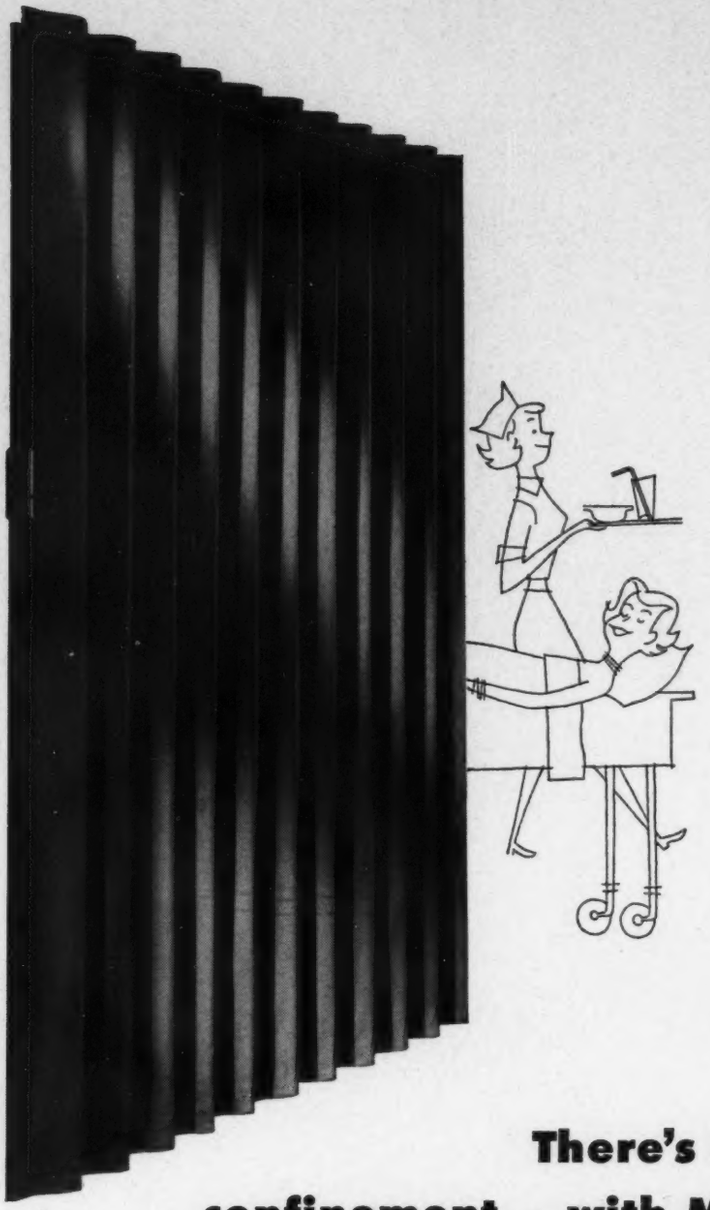
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There's more beauty, more durability . . . more *value* . . . in ever-popular Bruce Strip Oak Flooring with the famous "Scratch Test" Finish. It saves two ways: (1) There's no time-consuming sanding and finishing. (2) Installed cost is less than unfinished flooring plus on-the-job finishing. The Bruce factory-applied finish brings out all the beauty of the wood . . . outwears surface finishes 3 to 1. Bruce Strip Floors are also available unfinished. Write for booklet. See our catalog in Sweet's.

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Bruce PREFINISHED STRIP Hardwood Floors

Naturally Beautiful!



There's no such thing as confinement...with Modernfold doors

In hospitals, clinics and medical office buildings, space requirements change from minute to minute, but the need for privacy is constant.

How to have both privacy and flexible space in any building can be solved with versatile, long-wearing MODERNFOLD doors and walls which enclose areas with finger-tip ease or expand space instantly when more room is called for.

With its graceful lines and host of eye-catching colors, MODERNFOLD enhances the beauty of any decorating scheme. And, of course, MODERNFOLD is built for hard wear. Because of its tough vinyl covering and balanced, double-strength steel framework (all concealed), it delivers an almost unlimited life of efficient, trouble-free service. Models have been operated more than a million times without giving any indication of trolley or track wear or frame weakness.

Space in any building need never be confined, for MODERNFOLD gives both flexibility and privacy.

The MODERNFOLD Custom line—which comes in a wide variety of colors and is for openings of any size—is available through installing distributors, listed under "Doors" in city classified directories. The Spacemaster line—which can be painted or slip-covered and is for standard openings—is available at your building supply dealer. Or write New Castle Products, Inc., Dept. C30, New Castle, Indiana. In Canada: New Castle Products, Ltd., Montreal 6.

Full details in Sweet's File

modernfold
DOORS

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Better Mortar for Blocks



BETTER BODY

When concrete block are laid, the mortar should have "body", to support the weight of the unit, thus holding it up to the line. If the mortar lacks body, the block will settle below the line even if a thick bed of mortar has been spread.

At the same time, plasticity is required. Unless the mortar is plastic, the bricklayer cannot quickly and accurately tap the block down to the line.

Brixment has body and plasticity. It is firm but not stiff —soft but not sloppy. This combination of body and plasticity makes Brixment the best possible mortar to use with concrete blocks.

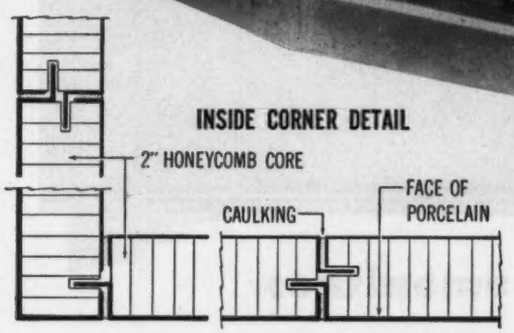


Louisville Cement Company . . . Louisville 2, Kentucky

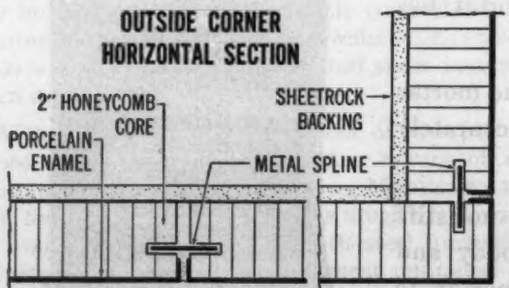
Porcelain-enamel-faced walls on new uptown motel



Architect:
Sturgis Associates,
Boston, Mass.



One of two types of panels used in this new building. Drawing shows horizontal section of inside corner. The honeycomb insulation is bonded to the porcelain enamel front face and to a paint-holding zinc-coated steel inside face.



The second kind of wall panel used in the 1200 Beacon St. Hotel. Honeycomb insulation is bonded to the 18 gage porcelain enamel face. Here sheetrock is used as the interior wall face.

Just 2 miles from downtown Boston, at 1200 Beacon St., there's something truly new in metropolitan hotels. It combines the convenience of a suburban motor court with the advantages of urban residence. Of completely modern construction, the long, two-story plus basement building has exterior walls of porcelain-enamel-faced sandwich panels in a mottled beige finish.

While only a little more than 2 inches thick, these wall panels have better insulative qualities than brick walls. Yet they are durable, light and easily installed. More than that, they form both exterior and interior walls—require only paint to complete the interior color scheme.

The hotel is of high quality construction inside and out. Even bathroom walls are entirely covered with large porcelain enameled tiles. The restaurant has the most modern stainless steel equipment. On the exterior, stainless steel trim is successfully combined with the New Orleans iron work.

For complete information on this new installation of porcelain enamel on Armco Enameling Iron, write us at the address below. Ask, too, for data on other Armco Special-Purpose Steels used in architecture.

ARMCO STEEL CORPORATION

925 Curtis Street, Middletown, Ohio • Sheffield Steel Division • Armco Drainage & Metal Products, Inc.
The Armco International Corporation

INSTALL WIREWAYS FASTER!

SQUARE D's NEW AND EXCLUSIVE *Lay-in Duct*



Square D's exclusive design provides hinged covers for both the duct sections and connectors. Easily removable fitting covers then provide a completely unobstructed wireway in which to lay wires.

LAY-IN DUCT is available in 2½" x 2½", 4" x 4", and 6" x 6" sizes, in standard lengths of 1, 2, and 5 feet. There is a complete line of fittings, all with the "lay-in" design feature.

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Write for the complete story of **LAY-IN DUCT**—how it gives you a better wireway system, easier, faster and at less cost. Address Square D Company, 6060 Rivard Street, Detroit 11, Michigan.

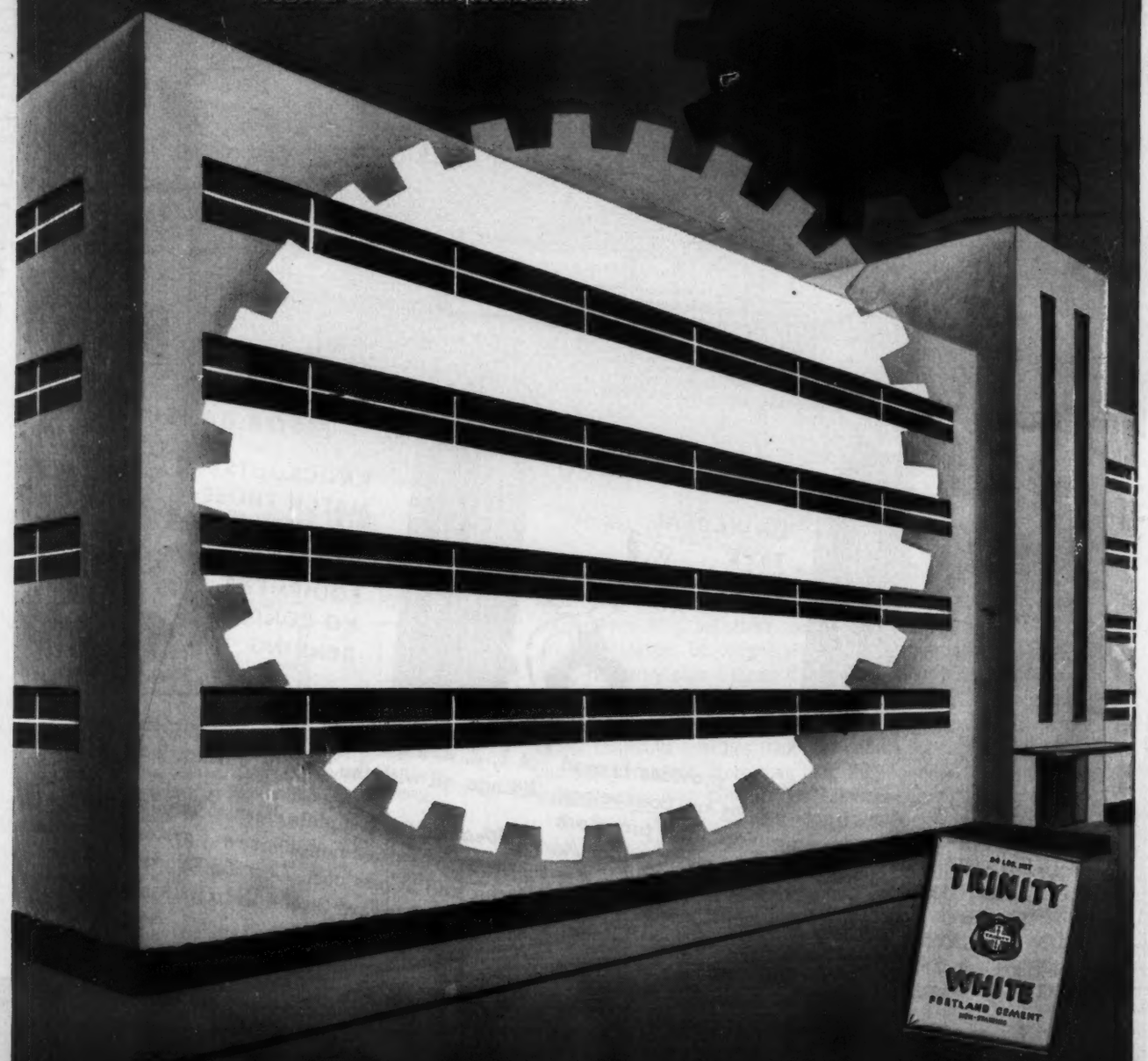
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is a true portland cement

Use it for a brilliant sparkling white,
or with pigments added it gives the loveliest of colors!
Specify it for architectural concrete units . . .
terrazzo . . . stucco . . . and light reflecting
uses. It's a true portland . . . and it meets all
Federal and ASTM specifications.



as white as snow

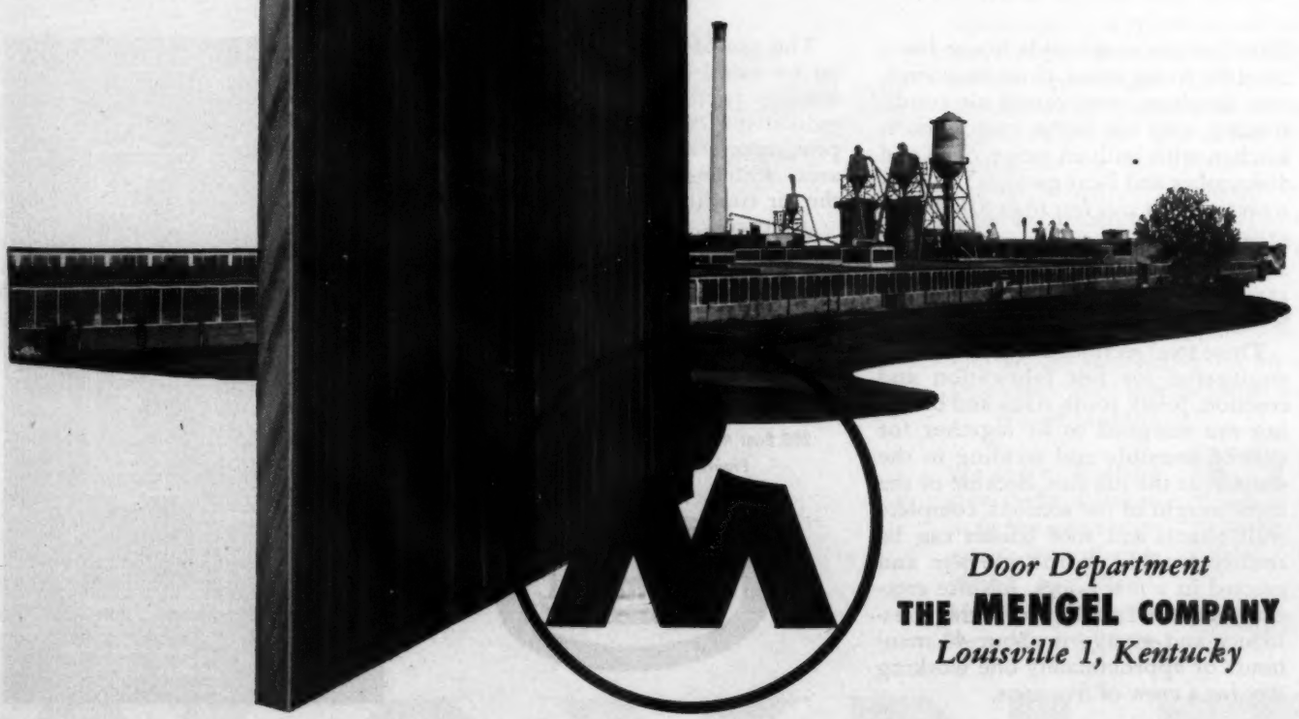
It's the whitest white cement

A Product of GENERAL PORTLAND CEMENT CO. • Chicago • Dallas • Chattanooga • Tampa • Los Angeles

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IF they're Mengel Doors, your worries are over. Every Mengel Door is built to meet or exceed the most rigid specifications — is *guaranteed* in accordance with the Warranty of the National Woodwork Manufacturers Association — is backed by Mengel's long years of experience and "know-how" in the manufacture of doors. *Mengel is the world's largest manufacturer of hardwood products* — including Mengel Permanized Furniture and Mengel Kitchen Cabinets.

These fine, *guaranteed* doors are available in three different types, for *every* kind of job — "Palace or Project". Each is an outstanding value, and is competitively priced. Write for complete information — AIA File No. 19-E-1.



Door Department
THE MENGEL COMPANY
Louisville 1, Kentucky

HERE

Use of LIGHTSTEEL cut construction costs to less than $10.00 a □′



Residence of Builder C. E. Goff, Dallas, Texas. This house, which has a total area of 2,260 square feet, is completely framed in steel. All interior walls and ceilings are plaster on metal lath, the roof deck is poured gypsum, and the exterior is brick. As a result, it is firesafe, termite-proof and virtually maintenance free.

This modern ranch-style house has a 28′ x 16′ living room, three bedrooms, two fireplaces, year-round air conditioning, two tile baths, custom-built kitchen with built-in range, oven and dishwasher and 2-car garage. *Yet, construction cost was less than $10.00 per square foot!*

How is this possible? The answer is: Penmetal LIGHTSTEEL structural sections.

These steel sections are scientifically engineered for fast fabrication and erection. Joists, studs, track and bridging are designed to fit together for ease of assembly and welding in the shop or at the job site. Because of the light weight of the sections, complete wall panels and roof trusses can be readily trucked to the job site and erected in a few hours. Job-site erection time for framing an average residence and garage is about 40 man-hours or approximately one working day for a crew of five men.

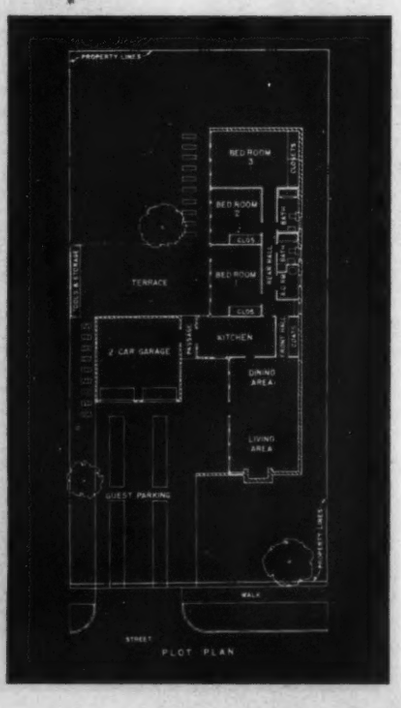
The use of thin, 2½″ (solid plaster on metal lath), non-load bearing interior partitions, not only helped reduce the cost, but also saved approximately 40 square feet of floor area, which provided the space for the air conditioning room.

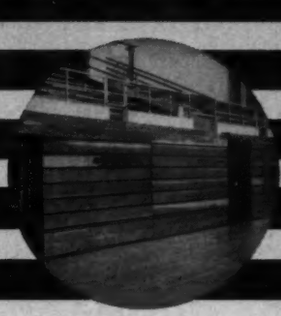
LIGHTSTEEL houses are not mass-produced; they are built to your own drawings and specifications. For further information, send for *new* 16-page illustrated catalog.

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Plant: Parkersburg, W. Va.

PM-63

Penmetal

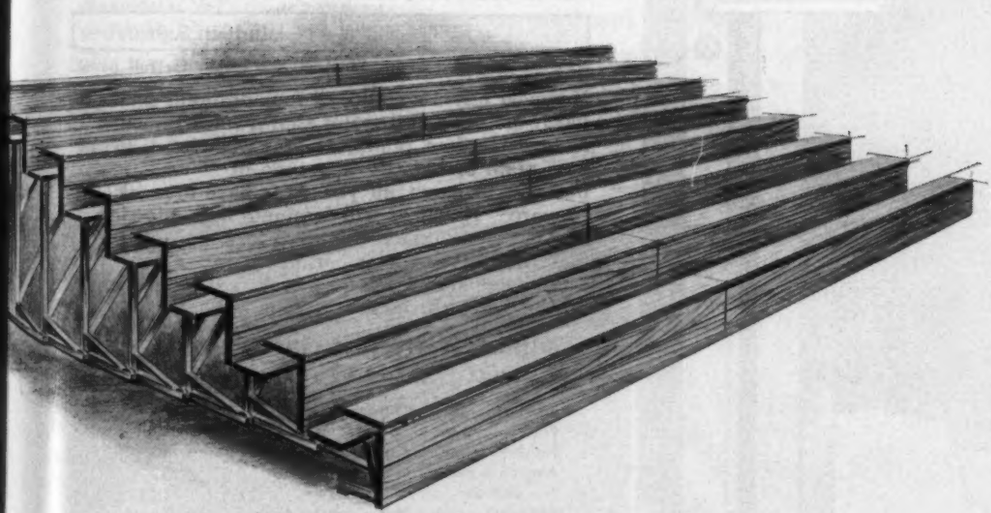






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functionally beautiful . . . beautifully functional

The statement above neatly sums up what we have done to make Wayne the finest seating available today for your gymstand dollar.

We at Wayne build into our gymnasium seating a smooth, smart, modern appearance that blends well into today's modern gymnasiums. Combined with this are all of Wayne's famous engineering advances. Closed riser board construction for fine appearance and safety. Exclusive alignment frame assembly permits smooth, easy, straight opening and closing operation. Wayne Gymstands are as beautiful as they are efficient.

Compare Wayne appearance . . . and Wayne engineering. For the same investment you'll specify *better seating* . . . Wayne seating!



Wayne's Rolling Gymstand Catalog R-54 free on your request—write direct to Wayne Iron Works, 148 North Pembroke Ave., Wayne, Penna.

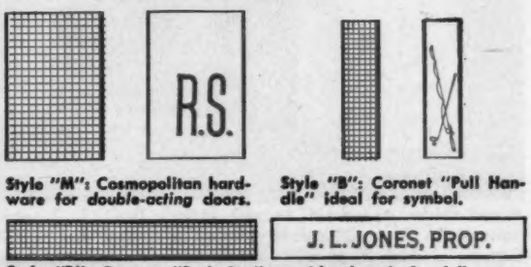
WAYNE



The first new...all-new "Custom" door at standard prices

An outstanding example of the "Kawneer Touch" . . . the new all-welded aluminum door can be "customized" to your needs. Now you can specify a door that is 10% stronger than similar doors, provides a clean, seamless, eye-appealing appearance, and features interchangeable hardware . . . yet the cost compares with other standard doors. Here is the only stock door that can be styled to any type of store. Learn all about it now. See your Kawneer dealer or write Kawneer, Niles, Michigan.

Now!—identification hardware "individually designed"



Style "M": Cosmopolitan hardware for *double-acting* doors.

Style "B": Coronet "Pull Handle" ideal for symbol.

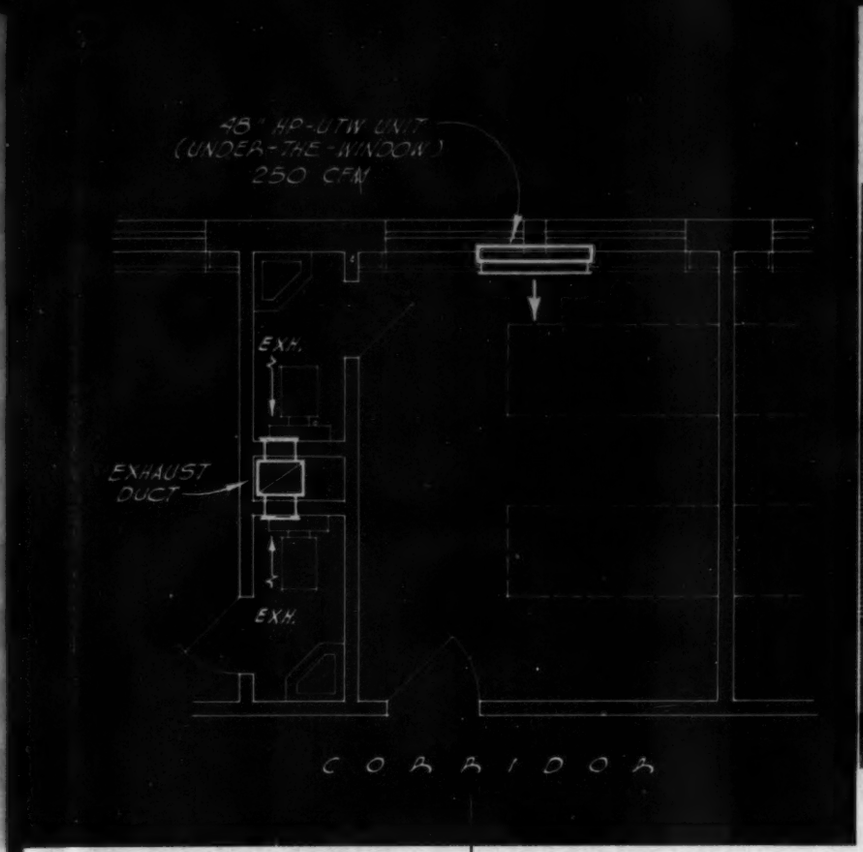
Style "B": Coronet "Push Bar" provides length for full name.

Kawneer offers a choice of four different styles of hardware. The two styles shown have interchangeable face plates. If you wish a face plate to identify any type of business or name, all you do is have artwork prepared. Kawneer will laminate it in plastic, etch it on aluminum, or produce it on any material you desire and in any color. The cross-hatch plate is then merely replaced right on the job with the new design.

Completely welded construction for greater strength—lower cost

- 10% stronger than most doors
- New "deep-weld" penetrates metal 100%
- Hairline joints and unblemished finish for attractive appearance
- No exposed, unsightly screws
- Seamless tubular frame construction
- Long lasting beautiful alumilite finish



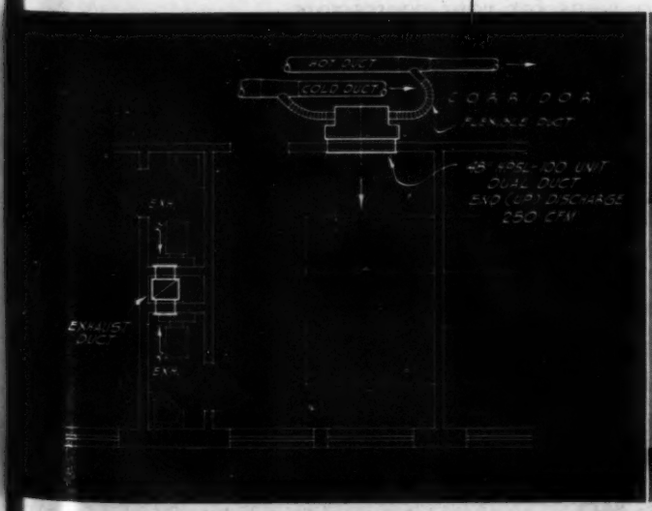




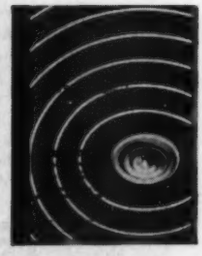
All-air high velocity units for **hospital air conditioning**

In successful use in many hospitals throughout the country, Anemostat HV round, square and straight line units are adaptable to a wide variety of architectural designs. Diagrams and photographs show typical applications of straight line units.

The All-Air High Velocity system of draftless air distribution offers many important advantages for hospital air conditioning. High velocity units, used with smaller than conventional ducts, save space and money. They substantially reduce sheet metal required, can be installed faster, with less labor. Since there are no coils in All-Air HV units, clogging and odors are eliminated. They operate entirely with air processed in the main equipment room; no fans, filters or electric motors are needed with All-Air HV units.







• ***For latest data on All-Air High Velocity units,*** **write on your business letterhead for *new Selection Manual 50* to Anemostat Corporation of America, 10 E. 39 Street, New York 16, N. Y.**

new Hillyard FLOOR SURVEY*



Your survey comes bound in this Modern Floor Treatment Manual with product sheets and specifications to fit individual needs.

* *individually compiled . . .*



to answer architects' questions on *particular* floor treatments

It's a brand new way to bring just the exact material you need and want for any type of floor installation or problem—without wading through extraneous information.

Hillyard designed this loose leaf style to give you in a moment's time, full product information on any installation you are presently working on—pinpointing results obtainable—outlining treating specifications with exact coverages and pictured procedure steps for your contractors.

You'll find it a great time-saver. An up-to-the-minute factual survey that will prove of inestimable help in keeping the natural beauty you build into every floor installation functioning for a lifetime of traffic wear.

Accept a free floor survey on any installation

Hillyard maintains a nationwide staff of more than 100 technically trained floor consultants (Hillyard Maintaineers). The one near you is prepared to make a complete floor survey of any installation, free of charge. You can depend on him to furnish reliable approved floor treatment data.

The *Hillyard Maintaineer* will act as your JOB CAPTAIN

Hillyard Maintaineers are trained to act as Job Captain on floors without charge. Consult the one nearest you. He's listed in your telephone directory—or write Hillyard direct.

Write or Call Collect for the Name of your nearest

HILLYARD MAINTAINEER

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FLOOR HILLYARD TREATMENTS

Branches and Warehouse Stocks in Principal Cities



These five Koppers Roofs protect the Los Angeles, California, Plant of The B. F. Goodrich Company.

Roofer: Owen Roofing Company.

The B.F.Goodrich Plant gets long-wearing roofs . . . KOPPERS!

THE B. F. Goodrich Company has a well-earned reputation for selling products that wear well. For its Los Angeles Plant, B. F. Goodrich *bought* a product that wears well—Koppers Built-Up Roofing.

All five Koppers Roofs shown here — some 246,000 square feet—are bonded roofs. Koppers has guaranteed the performance of its roofing materials for twenty years.

Coal-tar pitch, the basic ingredient of Koppers Roofs, is well known for its waterproofing qualities. It resists water without deteriorating and, because of its cold-flow properties, minor cracks heal themselves.

Get the best in built-up roofing by specifying Koppers. Koppers Pitch and Felt Roofs are widely-used to protect industrial, commercial and residential buildings. Full information given on request, or see our specifications in Section 7a—Sweet's Architectural File.

KOPPERS

KOPPERS COMPANY, INC.

Pittsburgh 19, Pennsylvania

DISTRICT OFFICES: BOSTON • CHICAGO • LOS ANGELES • NEW YORK
PITTSBURGH, AND WOODWARD, ALABAMA

see our catalog in ARCHITECTURAL FILE or write for copy

· SPECIFY KOPPERS FOR LONG-LIFE ROOFING ·



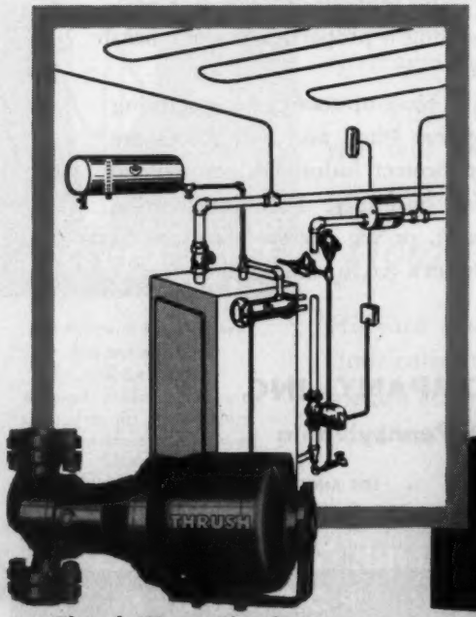
Invisible coils in ceiling or floor.



Radiant baseboards.

THRUSH system

is ideal for all forms of Radiant Hot Water Heat



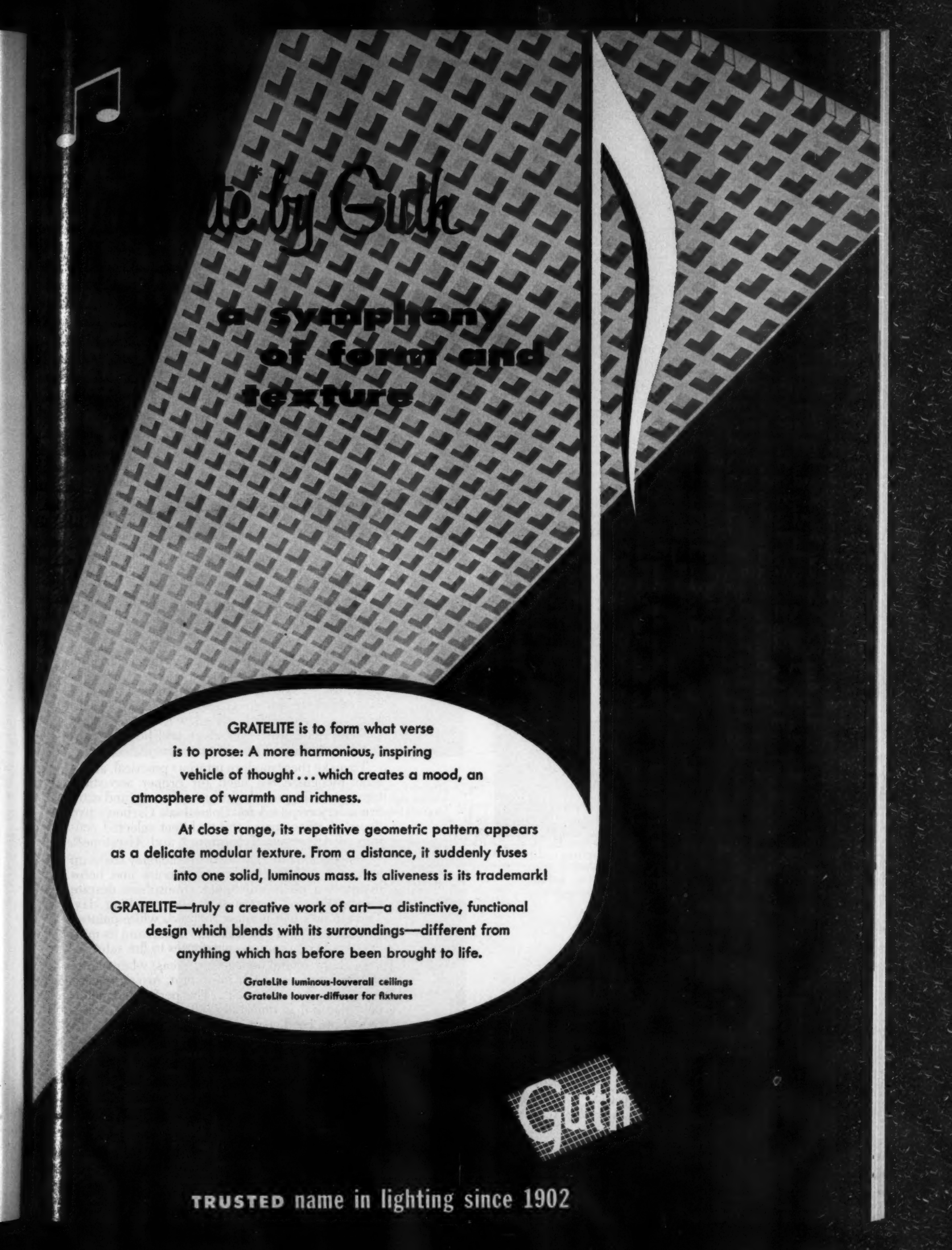
Thrush Water Circulator

Think of hot water when you are designing homes. It's the finest modern radiant heat available. Thrush Equipment places radiant hot water heat within the budget of the small as well as the larger home today.

Give your clients the economy of Thrush Radiant Heat . . . the mildness, the level uniformity of hot water. It's completely automatic . . . low in operating cost . . . and the cleanest, quietest heating ever. Builders everywhere find Thrush System helps sell the home!

For more information, see our catalog in Sweet's or write Department J-3.

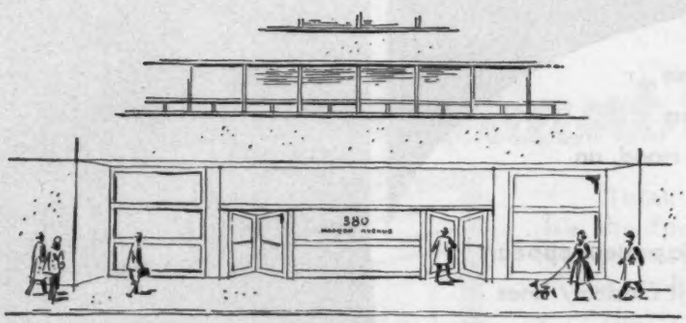
H. A. THRUSH & COMPANY
PERU, INDIANA


te by Guth
a symphony
of form and
texture
GRATELITE is to form what verse
is to prose: A more harmonious, inspiring
vehicle of thought... which creates a mood, an
atmosphere of warmth and richness.
At close range, its repetitive geometric pattern appears
as a delicate modular texture. From a distance, it suddenly fuses
into one solid, luminous mass. Its aliveness is its trademark!
GRATELITE—truly a creative work of art—a distinctive, functional
design which blends with its surroundings—different from
anything which has before been brought to life.
GrateLite luminous-louverall ceilings
GrateLite louver-diffuser for fixtures
Guth
TRUSTED name in lighting since 1902



A semi-circular conference table contributes an unusual note to the modern décor of the board room. The fissured, white-painted ceiling of Armstrong Travertone adds beauty besides promoting quiet.

Sound conditioning basic in open planned offices



Columbian Carbon Company,
New York, N. Y.

Architect: *J. Gordon Carr*
General Contractor: *Cauldwell-Wingate Co.*
Acoustical Contractor:
William J. Scully Acoustics Corp.

Today's modern office is a far cry from most of its pre-war counterparts. Open planning, an extensive use of room dividers, and other features of contemporary design as exemplified in the Columbian Carbon Company's new executive offices provide spaciousness, comfort, and beauty without any sacrifice of functionalism.

To make these modern interiors practical, architects recognize the need for proper acoustical treatment. To provide the quiet, beauty, and extra fire safety required for Columbian Carbon's two floors of office space, the architect selected ceilings of Armstrong Travertone* and Arrestone®.

Travertone's high acoustical efficiency soaks up as much as 80% of distracting noise and helps maintain a pleasantly quiet atmosphere despite the hustle and bustle of a busy working day. Travertone's handsomely fissured, white-painted surface also adds beauty to the décor, and its mineral wool composition contributes to fire safety.

In the machine accounting areas, where noise absorption is especially important, Armstrong Arrestone has been installed. This perforated metal-pan material is unusually efficient, has a noise-reduction coefficient of 0.85. Get full details on Travertone, Arrestone, and other Armstrong sound-conditioning materials from your local Armstrong Acoustical Contractor.

For the free 24-page booklet, "Armstrong Acoustical Materials," write Armstrong Cork Company, 4203 Rock Street, Lancaster, Pa.

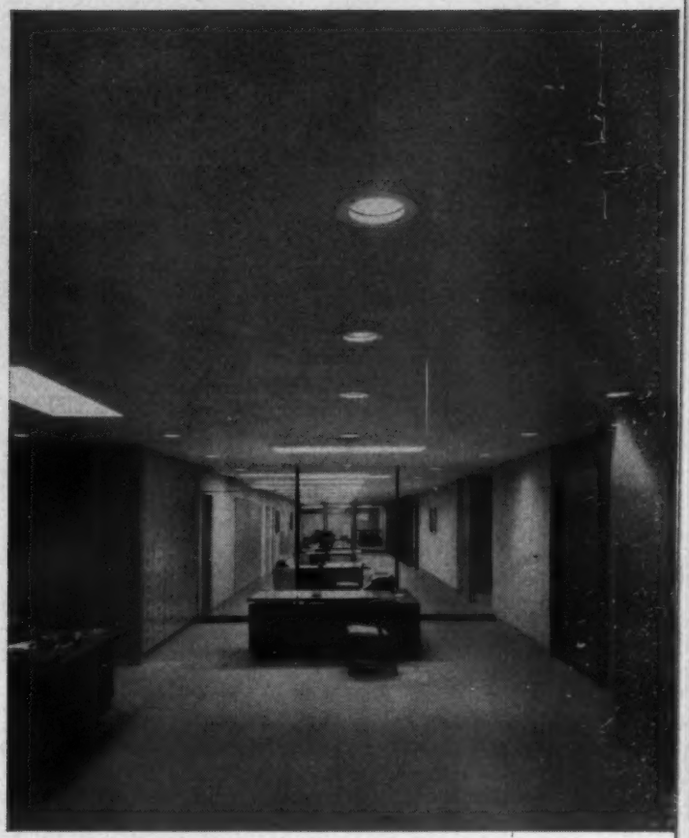
* Trade-Mark



Visitors are welcomed to the Columbian Carbon Company by beautiful, restful surroundings. The noise-absorbing ceiling of Travertone contributes to this atmosphere, blends well with the up-to-date décor.



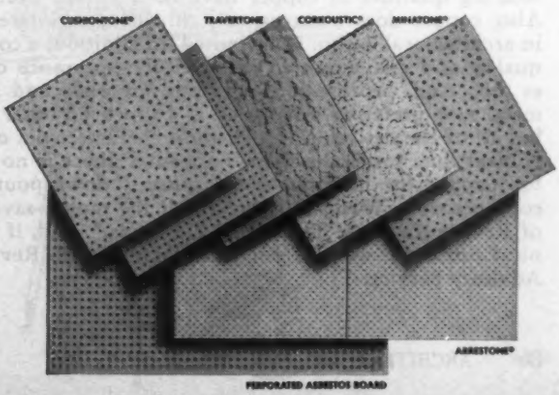
Sound conditioning this punchboard accounting machine room required an efficient acoustical material. Armstrong Arrestone was chosen for its high noise-absorbing qualities as well as its easy maintenance.



Glass partitions in the executive's secretarial area help promote a feeling of spaciousness. This "open" feeling is further carried out by the monolithic appearance of the square-edged Armstrong Travertone ceiling.



Dignity, beauty, and quiet are provided the president's office by the Travertone ceiling. This material will stay smart looking and clean for years with an occasional washing or repainting.

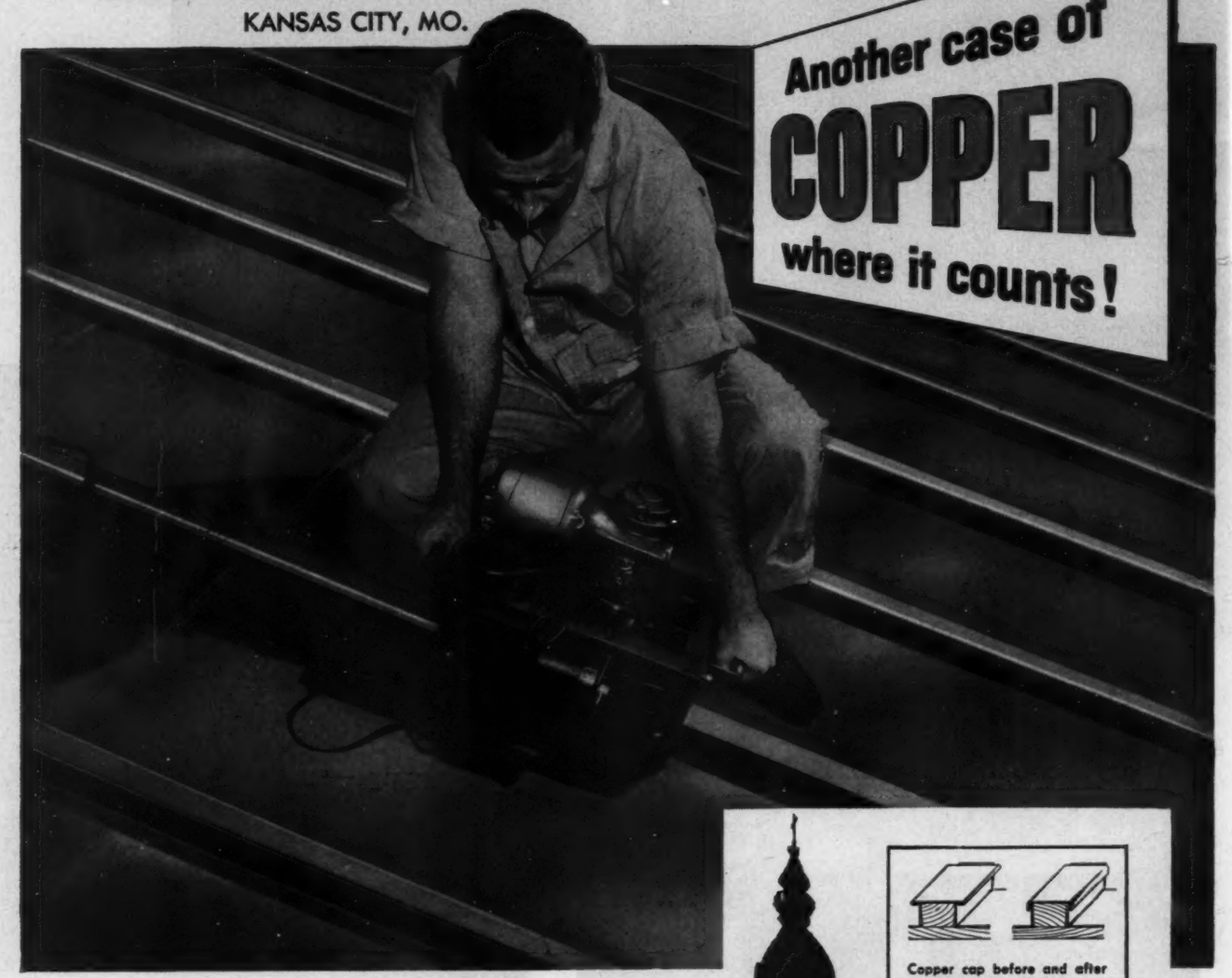


Armstrong ACOUSTICAL MATERIALS

CATHEDRAL OF THE

IMMACULATE CONCEPTION

KANSAS CITY, MO.



Copper cap before and after edges were rolled down against the battens.

19,200 LBS., of enduring Revere 20 oz. Cold Rolled Sheet Copper replaced a deteriorated, non-metallic roof on this Cathedral. The batten seam type of construction was used. Dome, steeple and gutter system also are of enduring Copper.

In applying copper, the most ancient of metals to this cathedral roof the most modern roofing methods were used by the sheet metal contractor, A. Zahner & Company. The machine you see above was developed by this Company to form the last fold of the copper cap over the battens. Not only does it do the forming more neatly but, according to the contractor, it does this job 10 times faster than would be possible with hand tools!

When it became necessary to replace the deteriorated non-metallic roof on this cathedral there were two important factors to consider: 1—The new material had to be much lighter than the old material which would have been excessive for the 73-year-old cathedral. 2—The new roofing material had to endure for scores of years.

That's why copper was chosen. Copper roofing over the same area weighed only 1/5th of that of the old material and the superior wearing qualities of copper have been proved over the centuries. Also, copper does not rust, rot, chip or deteriorate. Its flexibility in architectural design is unlimited. In addition, a copper roof adds quality and distinction to the overall appearance of edifices such as this. And, because it is so readily worked and soldered, sheet metal men prefer to work with it. In fact, no other metal or alloy has all of the desirable construction characteristics of copper.

Next time you write specs. remember: there is no "OR EQUAL" for copper for flashing, roofs, gutters, downspouts, valleys and coping covers. Write us today about the money-saving advantages of Revere Keystone Thru-Wall Flashings.* And, if you have technical problems, we will put you in touch with Revere's Technical Advisory Service.

*Patented

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ANNOUNCING

The Classroom Furniture of Tomorrow . . . **TODAY**

Samsonite





a new concept in color...

a new dimension in design



The Mobile Samsonite Open Front Desk gives maximum storage space! Forms related unit with matching Pivot-Back chair.

The bright magic of

Russel Wright

...only with Samsonite Classroom Furniture



New sun-bright colors make drab Classrooms Cheerful

This new classroom furniture makes attention less tiring, learning more fun!

Samsonite combines creative imagination with scientific analysis and survey testing in 30 states...creates the most modern classroom furniture in the world!

IN COMFORT...

all dimensions and contours embody gently flowing lines in back and seats, to promote proper posture, and insure maximum classroom attention. Desk and chair combinations come in *nine* posture-perfect sizes for every grade and for every school.

IN MOBILITY...

Samsonite's modern design allows the instructor to create exciting, informal layouts or conventional rectilinear arrangements . . . move units from room to room without conflict in color or contour.

IN DURABILITY...

new features like aluminum spats on legs, evidence Samsonite's insistence on furniture that's "strongest ...lasts longest"...maximum economy for burdened school budgets.



290 square inches of writing surface! New Samsonite *Tablet Desk Chair* plays multiple roles in classroom, meeting rooms, lunchroom.

A new note in schoolroom furniture, Samsonite's *Circular Table* lends an informal, non-institutional look to the classroom.



Samsonite's four colors were carefully selected to blend or contrast effectively with classroom colors nationally in use... to mix-match harmoniously among themselves, in pairs, or in other combinations. Look at the bright possibilities the new selection gives you.

GREY

A new, sparkling Grey tone blends with every color scheme.

BROWN

A new "freshened" Brown avoids usual drabness of that color.

TURQUOISE

A friendly Green-Blue introduces exciting classroom color interest.

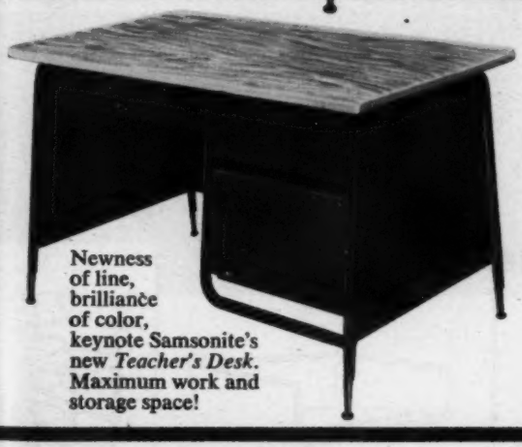
TERRA COTTA

A lively yet subdued Red, refreshing in any room.

New comfort-curved contours keep young bodies healthy



For all group activities, Samsonite's colorful *Activity Table* with three book boxes. (Also available with six boxes.)



Newness of line, brilliance of color, keynote Samsonite's new *Teacher's Desk*. Maximum work and storage space!



Samsonite *Lift-Lid Desk*. Fingers cannot be caught between lid and book box because of special "recessing". Friction hinge prevents slamming!



New Samsonite *Trapezoid Table* adapts in groups to endless combinations for varied school activities.



New rolling contours in Samsonite's *Unit Chair!* Available with Samsonite's new *swivel back*.

Back swivels to cradle every body movement!



Samsonite *Student Desk* can also serve as table. Several can be pushed together for group projects.

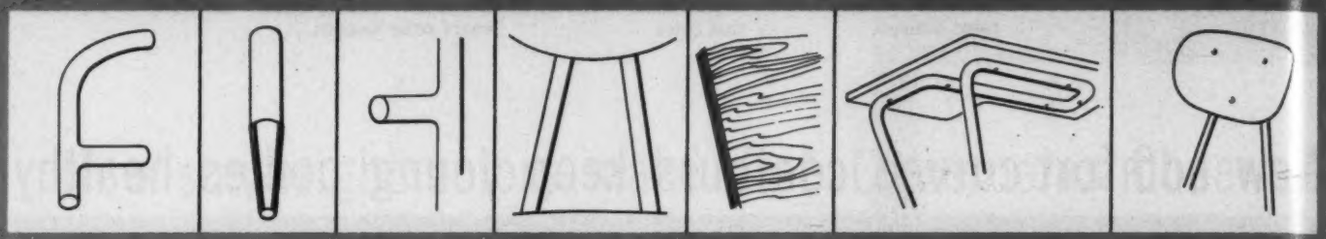


Plenty of leg room and storage space! The Samsonite *Shelf Desk* brings modern color, graceful lines to the classroom.

Why Samsonite is your smartest school buy

New construction advances for a bright new age in classrooms

MONEY SAVING DURABILITY



Tubular steel frame construction to combine lightweight mobility with extreme strength.

Roller-swaged leg taper. Thicker tubing at bottom gives extra durability and support. Tapers encased in aluminum spats.

Resistance welded joints. Metal joints made in specially designed machines. Welds are as strong as frame itself.

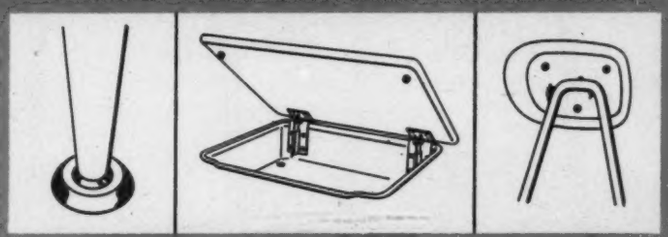
Electrostatically-deposited enamel on bonderized metal. Absolutely uniform enamel coverage. Non-chalking, highly resistant to abrasion and chipping.

Best quality adhesives. Wooden joints are bonded with water resistant urea resin adhesives, cured under heat and pressure.

Perfectly balanced supports. Tablet arms and tablet desk supports are made of continuous lengths of steel. Cantilever distributes all stresses evenly.

Plastic back support. Never needs refinishing. Steel reinforcement plate insures perfect distribution of stresses.

FULL CLASSROOM SILENCE

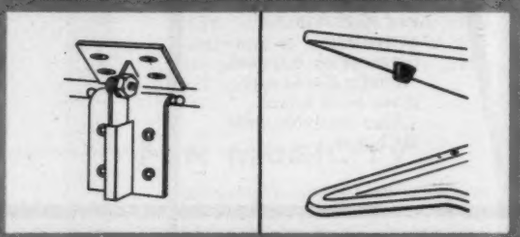


Silent glides. Polished steel glides cushioned in rubber eliminate distracting noise from moving furniture.

No-slam lids. Rugged friction hinges prevent slamming. Countersunk rubber grommets eliminate all possibility of noise.

Rubber stop on pivoting back guarantees completely silent pivot operation.

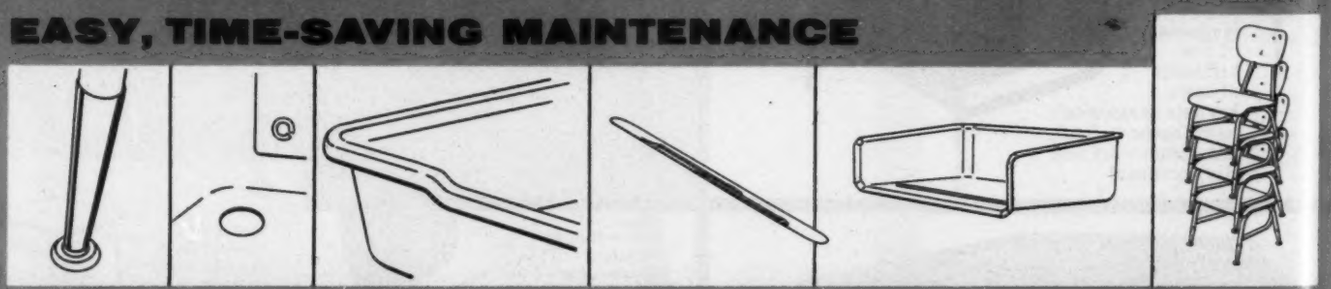
MISCHIEF PROOF



Self-locking fasteners can't be loosened with coins, knives or even screwdrivers.

Roller bumpers on desk lid are countersunk, cannot be pried loose.

EASY, TIME-SAVING MAINTENANCE



Tapered aluminum spats camouflage scuffs and mopmarks.

Clean cut holes in desks and book boxes prevent dust accumulation, save time in cleaning.

Flanged, beaded and beveled corners and edges simplify cleaning, eliminate dust accumulation.

Curved edges and grooves on pencil trays for thorough cleaning in a jiffy.

Single stamping book boxes, racks and shelves. No seams, joints or rough edges to collect dust or hamper cleaning.

Easy stacking. Shape of chair legs compatible with shape and size of seats. Chairs may be stacked securely four high.

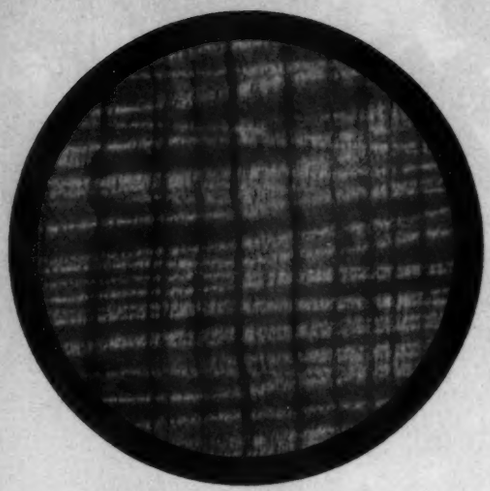
Makers of the famous Samsonite folding tables and chairs for every institutional use

Samsonite ...the Classroom Furniture that's

STRONGEST...LASTS LONGEST!

New Samsonite Classroom Furniture Catalogue

Complete specifications on new Samsonite Classroom Furniture, fully illustrated in color. Write to Shwayder Bros., Classroom Furniture Division, Detroit 29, Mich. for a copy and for the name of your nearest distributor.





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FOR WALL PANELING

The King of Woods—you cannot specify a finer, richer, more beautiful paneling than Teak.

We have 325 different grain patterns of rare woods available in our architectural portfolio—the most extensive in the world—including Rosewood, Harewood, English Brown Oak, Satinwood, Butternut.

Include in your design these magnificent veneers. Consult our specialists.

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Address_____

City and Zone_____ **State**_____



The Texas Company's Buffalo office building was designed by Duane Lyman and Associates, architects. *General Contractor:* George W. Walker and Sons, Inc. Both are of Buffalo.

OFFICE BUILDING IS "GOOD NEIGHBOR" IN SEMI-RESIDENTIAL AREA

How an office building was designed to be a "good neighbor" in an established, semi-residential district is well illustrated by The Texas Company's administration and executive offices on Delaware Avenue, in Buffalo.

The new building, while a modern, utilitarian structure, had at the same time, to fit harmoniously into a setting of old trees, churches and homes.

The architects chose a traditional design, using warm red brick for the exterior finish. Careful attention to details—doors, windows and the front gate and fence—give the building a dignity in keeping with its surroundings.

Materials were chosen not only for their beauty but for permanence. Beneath the brick is a structural steel framework. And the floor structures of the first and second floors were built with Bethlehem Open-Web Steel Joists. These steel joists were used because of their strength and rigidity and because, in combination with floor slab and poured ceiling, they provide up to four hours' fire-safety.

Bethlehem Open-Web Steel Joists offered several other advantages. They reached the job-site fully fabricated, marked and ready for placing. They needed only field-welding to secure them in position. Pipes and conduits were run through the open webs, and installation of lighting fixtures and acoustical ceilings was greatly simplified.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.
On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

BETHLEHEM OPEN-WEB STEEL JOISTS

BETHLEHEM STEEL



Just STAINLESS STEEL SINKS and CABINET TOPS

Meet Highest Architectural Standards



St. Francis Hospital, Lynwood, Cal.



The Upjohn Company, Kalamazoo, Mich.



Hotel Dieu, New Orleans, La.

For many years, America's leading manufacturers of hospital, school and laboratory casework have turned to the Just Manufacturing Co. for the very finest in stainless steel sinks and cabinet tops because:—

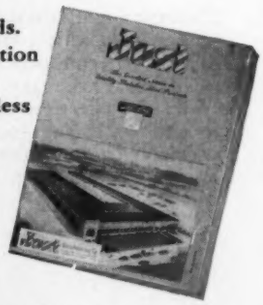
JUST craftsmanship assures perfect fit for their cabinets.

JUST design gives unlimited freedom in planning to conform to modern architecture.

JUST precision construction reduces installation costs by eliminating "on-the-job" alterations.

And only in Just Line stainless steel products do you get ALL these features:—

- Patented Anti-Splash Rims around the entire perimeter of sink bowls.
- Patented double pitched drainboards.
- Seamless welded one-piece construction for utmost sanitation.
- Maximum use of heavy gauge stainless steel for lifetime durability.



For further information see our Catalog 23-B in Sweet's Architectural File or write today for illustrated literature and name of your nearest field representative.

Just Manufacturing Co.

9233 KING AVENUE
FRANKLIN PARK, ILL.

IN THE GREATER CHICAGO INDUSTRIAL DISTRICT

THE GREATEST NAME IN QUALITY STAINLESS STEEL PRODUCTS

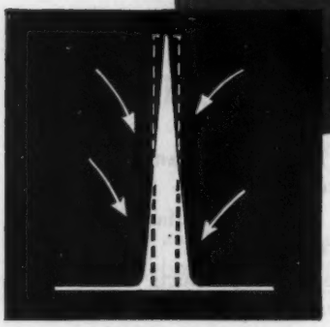
Even More Surface

per sq. ft. of face area

Even Less
Air Friction



with the New
AEROFIN Type B
Smooth-Fin Heat Exchangers



Tapered Fin

The new smooth fin is tapered, with a wide contact base which conducts sufficient heat to make the entire fin effective transfer surface. It is no longer necessary to crimp the fin to provide the required contact area.

By eliminating the air resistance and turbulence caused by the wrinkles in the old-type coils, it is now possible to use almost twice as many fins per inch with no increase in air friction.

The resulting increase in capacity is obvious. As a consequence, these new coils offer you:

Greater capacity per square foot of face area

Lower airway resistance — less power needed to deliver the required C. F. M.

Smaller face area, due to the practical use of higher air velocities

Fewer rows of tubes for a given B.T.U. transfer in a given area

Less weight — easier handling

Better water drainage from water coils; improved venting and drainage for heating coils

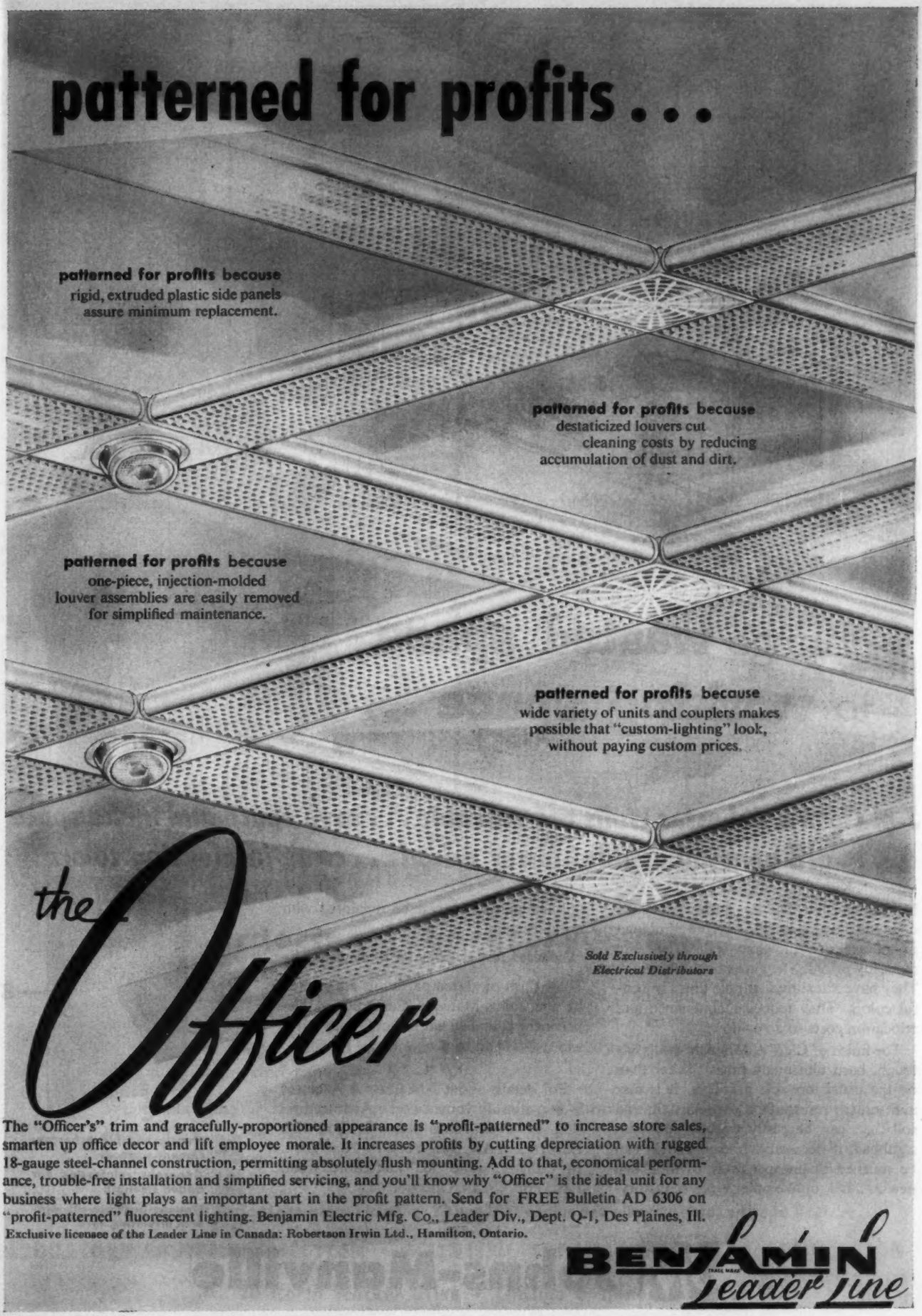
Compact, sturdy design

Standardized encased units arranged for quick, economical installation

Aerofin is sold only by manufacturers of fan-system apparatus. List on request.

AEROFIN CORPORATION

SYRACUSE 1, N. Y.


patterned for profits . . .
patterned for profits because
rigid, extruded plastic side panels
assure minimum replacement.
patterned for profits because
destaticized louvers cut
cleaning costs by reducing
accumulation of dust and dirt.
patterned for profits because
one-piece, injection-molded
louver assemblies are easily removed
for simplified maintenance.
patterned for profits because
wide variety of units and couplers makes
possible that "custom-lighting" look,
without paying custom prices.
the Officer
Sold Exclusively through
Electrical Distributors
The "Officer's" trim and gracefully-proportioned appearance is "profit-patterned" to increase store sales, smarten up office decor and lift employee morale. It increases profits by cutting depreciation with rugged 18-gauge steel-channel construction, permitting absolutely flush mounting. Add to that, economical performance, trouble-free installation and simplified servicing, and you'll know why "Officer" is the ideal unit for any business where light plays an important part in the profit pattern. Send for FREE Bulletin AD 6306 on "profit-patterned" fluorescent lighting. Benjamin Electric Mfg. Co., Leader Div., Dept. Q-1, Des Plaines, Ill.
Exclusive licensee of the Leader Line in Canada: Robertson Irwin Ltd., Hamilton, Ontario.
BENJAMIN
Leader Line



change **wasted space** to **working space ...**

J-M Class A Asbestos Walls are movable . . . save space and make space . . . are noncombustible, lower priced . . . come in pleasing colors

New Johns-Manville Class A Movable Walls offer you advantages never before combined in an asbestos movable wall. They are modestly priced. They are noncombustible. They have a textured, stipple finish in restful colors. They reduce maintenance and relocation costs to a new low.

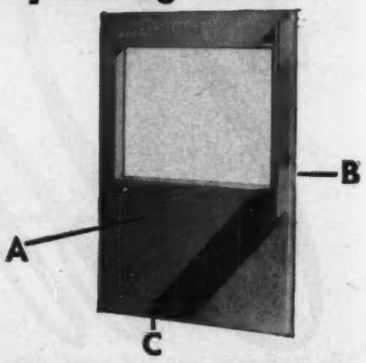
The finish of Class A Movable Walls is a tough, hard film many times thicker than on the usual movable partition. It is mar and scratch resistant . . . rejects stain and soil . . . can be easily washed and even scrubbed, if necessary. If damaged, it can be touched up inexpensively to look like new . . . and, unlike other types of factory-finished partitions, can be repainted with ordinary paint.

Undivided responsibility for a complete job

These flush or glazed partitions are erected by the Johns-Manville Construction Department complete with doors, door hardware, glass and trim.

• • •

For details about J-M Class A Asbestos Walls, consult your Sweet's Architectural File, or write Johns-Manville, Box 158, Department AR, New York 16, New York. In Canada, write 565 Lakeshore Road East, Port Credit, Ontario.

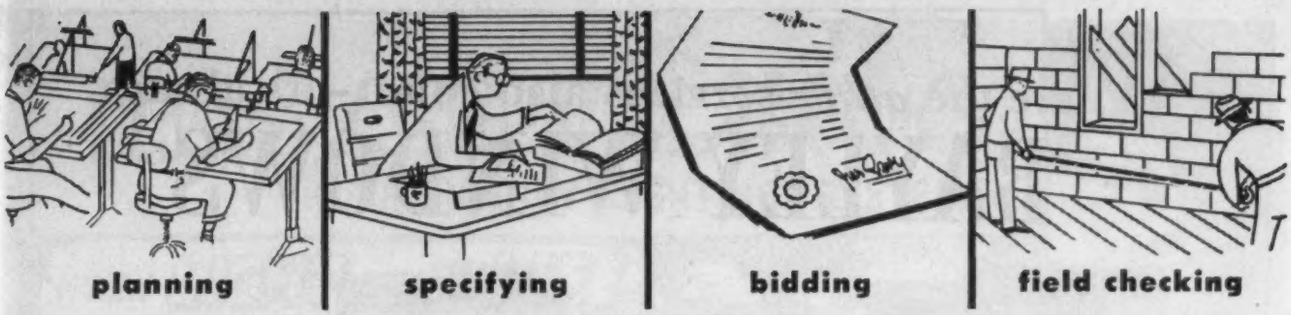


A Noncombustible asbestos-cement surfaces

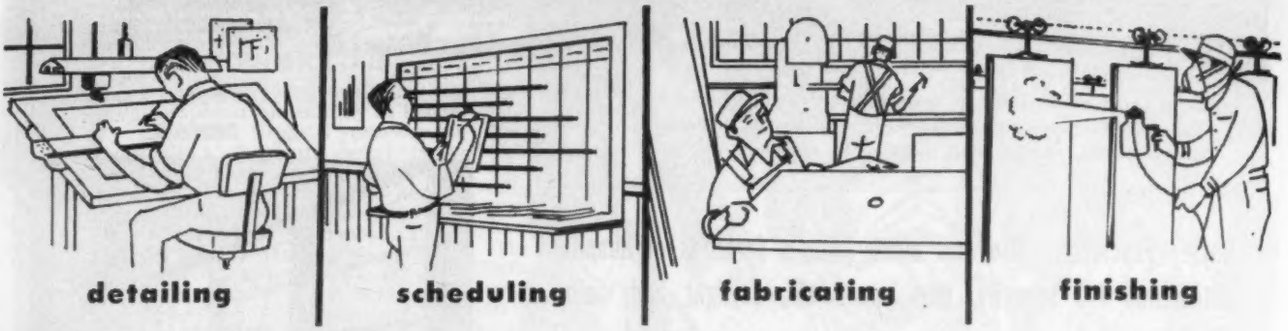
B Generous reinforcing for added strength

C Noncombustible all-mineral insulating core

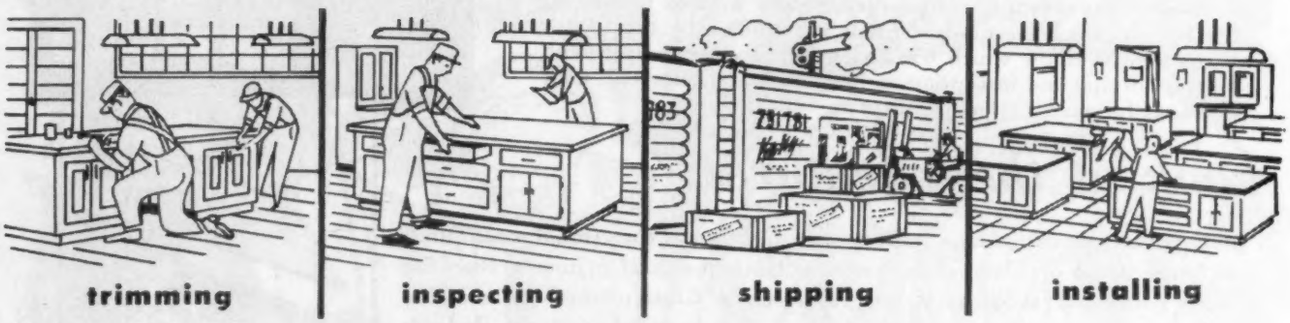
JOHNS-MANVILLE JM PRODUCTS **Johns-Manville**



12 steps in every laboratory job



12 reasons why it's smart to allow



adequate lead-time

when ordering laboratory equipment!

If your new laboratory is to be a good one, all these steps (and many others not shown here) must be done, and done right. This requires a tremendous background of experience, skilled planners and workers, highly specialized manufacturing facilities—and time.

When planning a new laboratory, use this simple formula to insure lasting satisfaction . . . *see that your contract is placed with a specialized manufacturer of laboratory equipment, and allow adequate time for completion of his work.*

For your FREE copy of Better Laboratory Planning, 28 pages of photos and planning data, write to Dept. A

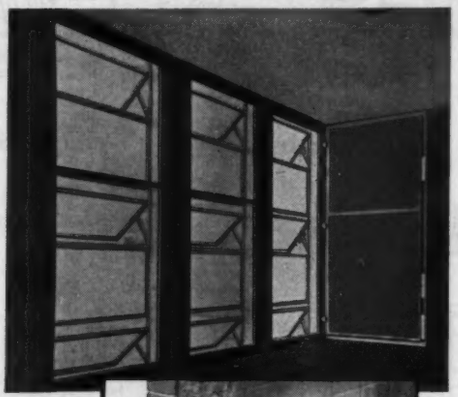
LABORATORY EQUIPMENT SECTION • SCIENTIFIC APPARATUS MAKERS ASSOCIATION

20 North Wacker Drive • Chicago 6, Illinois

Where the *other* services also count – it's always BAYLEY WINDOWS



Larue Carter Memorial Mental Hospital, Indianapolis, Indiana
Robert Frost Daggett & Associates, Archt., Indianapolis, Indiana
Service Construction Co., Bldr., Indianapolis, Indiana



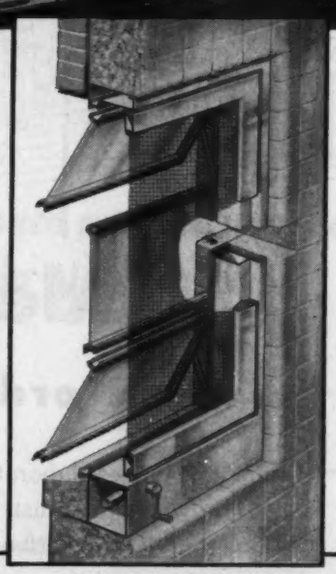
Bayley Psychiatric Windows meet today's demands of hospital authorities for security, plus ample air, daylight and vision

Rendering all phases of specialized window assistance—from the inception of a building project to its completion—is Bayley's forte. Time-proven quality of product is only one ingredient. Even more important is design—achieving a window that meets the buildings specific needs. This is exemplified by the Bayley Psychiatric Window which was developed in collaboration with mental hospital and institution authorities. It complies with their demands for such window features as:

Look at these features:

Safeguards against escape • Better daylighting • Controlled ventilation • Large areas of clear glass vision • Minimizes self injury • Working parts concealed • Sanitary, easy to clean • Glass washed from inside • Reduces maintenance and interference with hospital routine • Reduces detention appearance • Can be fitted with inside screens and drapes.

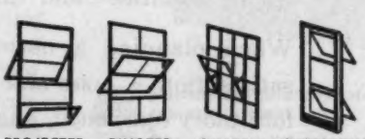
Your requirements may call for this or an entirely different type of window. In any case you'll find Bayley qualified and cooperative in helping you solve your problem with either aluminum or steel windows. For complete information write or phone today.



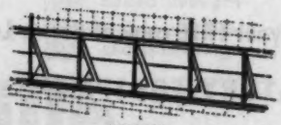
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75 Years of RELIABILITY

See Bayley in Sweet's. Complete catalogs on aluminum windows, 16a/Bay; and steel windows, 16b/Ba. Or write Bayley for details on your specific requirements.



PROJECTED PIVOTED GUARD PSYCHIATRIC



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District Sales Offices: Springfield —— Chicago —— New York —— Washington

FACTS ABOUT Exide®

EMERGENCY LIGHTING SYSTEMS

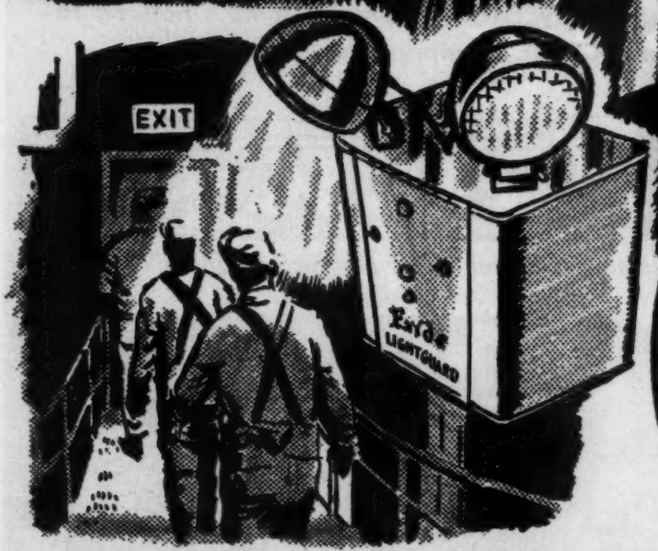
WHEN LIGHT MEANS LIFE
DEPEND ON EXIDE EMERGENCY LIGHTING!

bloody abbatoir.

Surgeon Works As Power Fails

An emergency operation was completed successfully at [redacted] Hospital yesterday despite a 40-minute electric power failure that knocked out all lights, heat, elevators and dumb-waiters.

The power transfer to a battery-powered emergency system in the institution was made so smoothly that some attendants in the operating room were not aware of the disruption. A break on a main line on [redacted] blvd. was responsible for the power failure from 8:50 to 9:30 A. M.





LIGHTS OUT 15 MINUTES... THOUSANDS OF DOLLARS WORTH OF MERCHANDISE STOLEN!

THAT'S WHAT IT COST A DEPARTMENT STORE NOT TO HAVE EXIDE EMERGENCY LIGHTING PROTECTION.

WHEN LIGHTS GO OUT... EXIDE-LIGHTGUARDS® GO ON!

WHENEVER STORMS, FLOODS, ACCIDENTS OR FIRES CAUSE UNEXPECTED POWER FAILURES, COMPACT, PORTABLE EMERGENCY LIGHTING UNITS FURNISH LIGHT INSTANTLY AND AUTOMATICALLY! THEY PREVENT PANIC, INJURIES, PROPERTY DAMAGE, LOOTING!

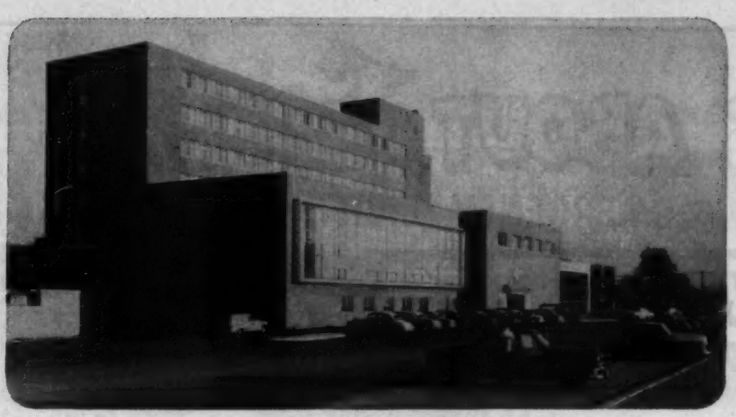
LONG-LIFE EXIDE BATTERIES

HAVE BEEN USED FOR YEARS TO SUPPLY LOW-COST POWER FOR ALL TYPES OF EMERGENCY LIGHTING SYSTEMS, FOR 6-VOLT, 32-VOLT AND 115-VOLT INSTALLATIONS. FOR HELP IN DETERMINING WHAT TYPE OF SYSTEMS TO INSTALL, SPECIFICATIONS:

1. CALL AN EXIDE SALES ENGINEER FOR FULL DETAILS.
2. WRITE FOR FORM 4808 DESCRIBING LIGHTGUARDS, AND FORM 4721 ON PERMANENT INSTALLATIONS.

Exide INDUSTRIAL DIVISION, The Electric Storage Battery Company, Philadelphia 2, Pa.







Fountain in the garden of the Student Union.

New Student Union Selects Air Conditioning & Refrigeration

This fine building of the Indiana University Medical Center, at Indianapolis, comprises apartments, guest rooms, dining halls, shops, swimming pools, etc.

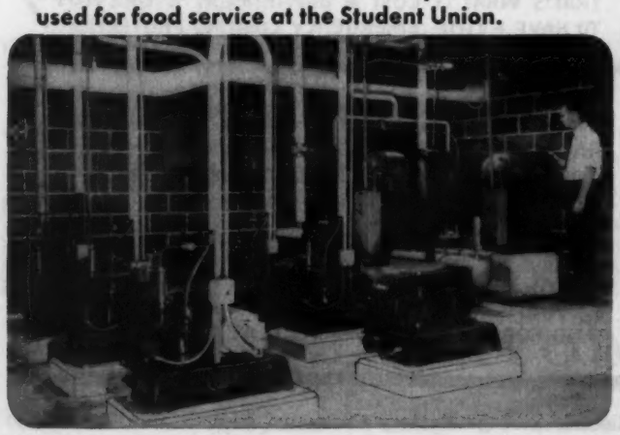
Here both air conditioning and food service loads are handled by 13 Frick refrigerating machines, and a Frick unit air conditioner. Seven fractional-horsepower units serve food-dispensing equipment, while four of 7½ horsepower each cool a dozen walk-in boxes. The Frick "ECLIPSE" machines operate a chilled-water air conditioning system. Installation by Hayes Bros., Inc., Distributors at Indianapolis and South Bend.

For that important cooling job of yours, specify Frick equipment: there's nothing to compare with it. Write now for Bulletin 100 on "ECLIPSE" compressors.



The book store, cafeteria, and other public spaces are all air conditioned.

Below: Some of the 11 Frick low-pressure units used for food service at the Student Union.

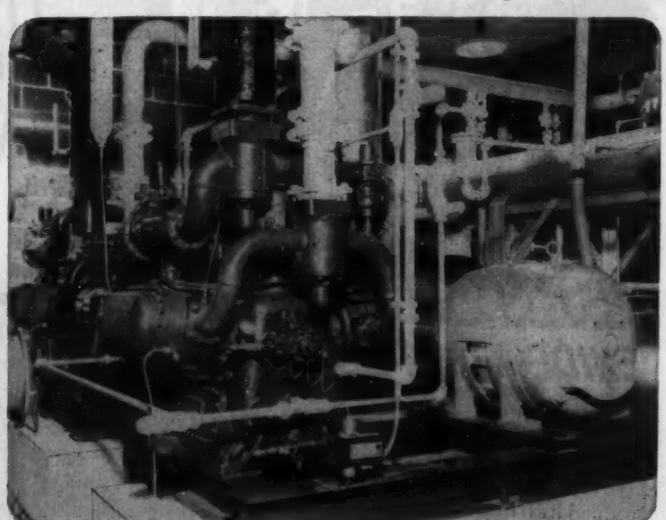


DEPENDABLE REFRIGERATION SINCE 1882

FRICK CO.

WAYNESBORO, PENNA. U.S.A.

Also Builders of Power Farming and Sawmill Machinery



Two Frick "ECLIPSE" compressors, each with nine cylinders, handle the air conditioning of public spaces in the Student Union at Indianapolis.

Specify the best...
then Insist on it!



MEDART
TELESCOPIC GYM SEATS*





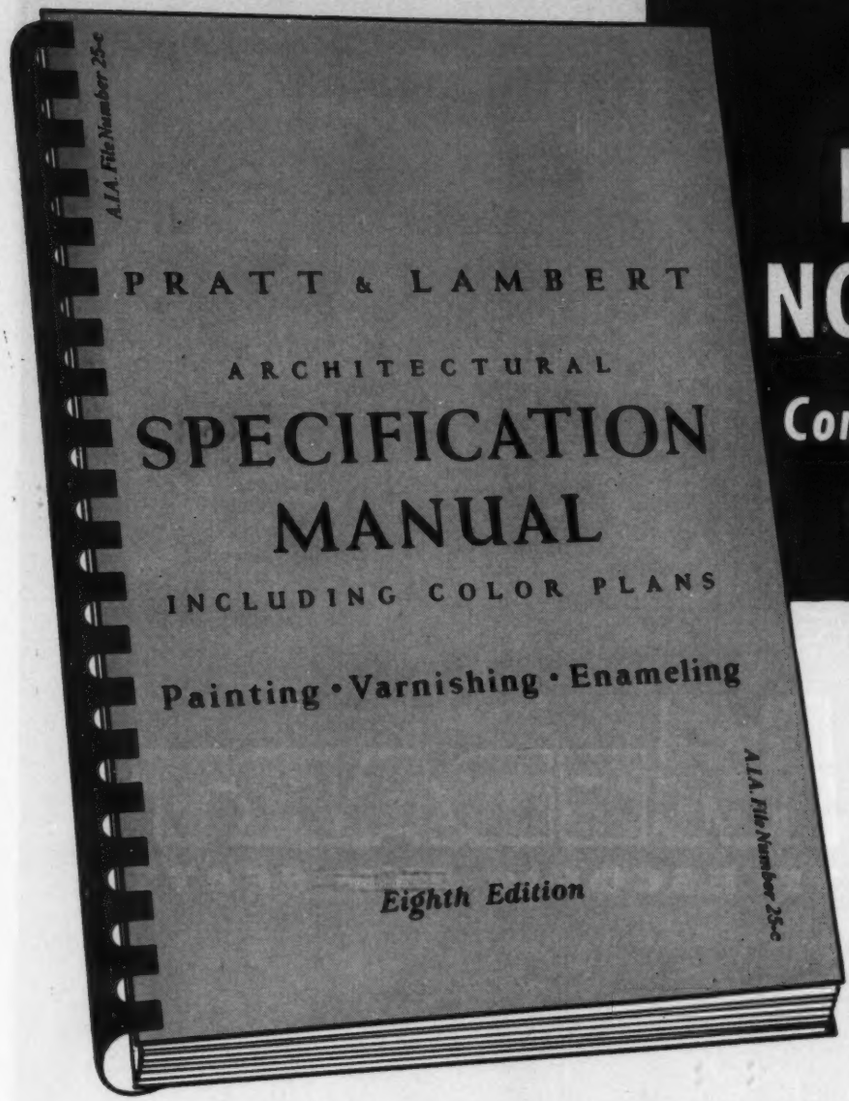
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Stronger!
Roomier!
Lighter!
Easier Operating!
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*Medart Telescopic Gym Seats are fully protected by U. S. Patents



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● Places concise, accurate and complete painting specifications at your finger tips. Covers all types of paintable surfaces both exterior and interior — and every type of residential, institutional, commercial or industrial construction.

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● This new Eighth Edition of the Pratt & Lambert Architectural Specification Manual is your key to the soundest of painting specifications. It is based on years of close cooperation between Pratt & Lambert and leading architects throughout the United States and Canada. It is authoritative.

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PRATT & LAMBERT-INC.

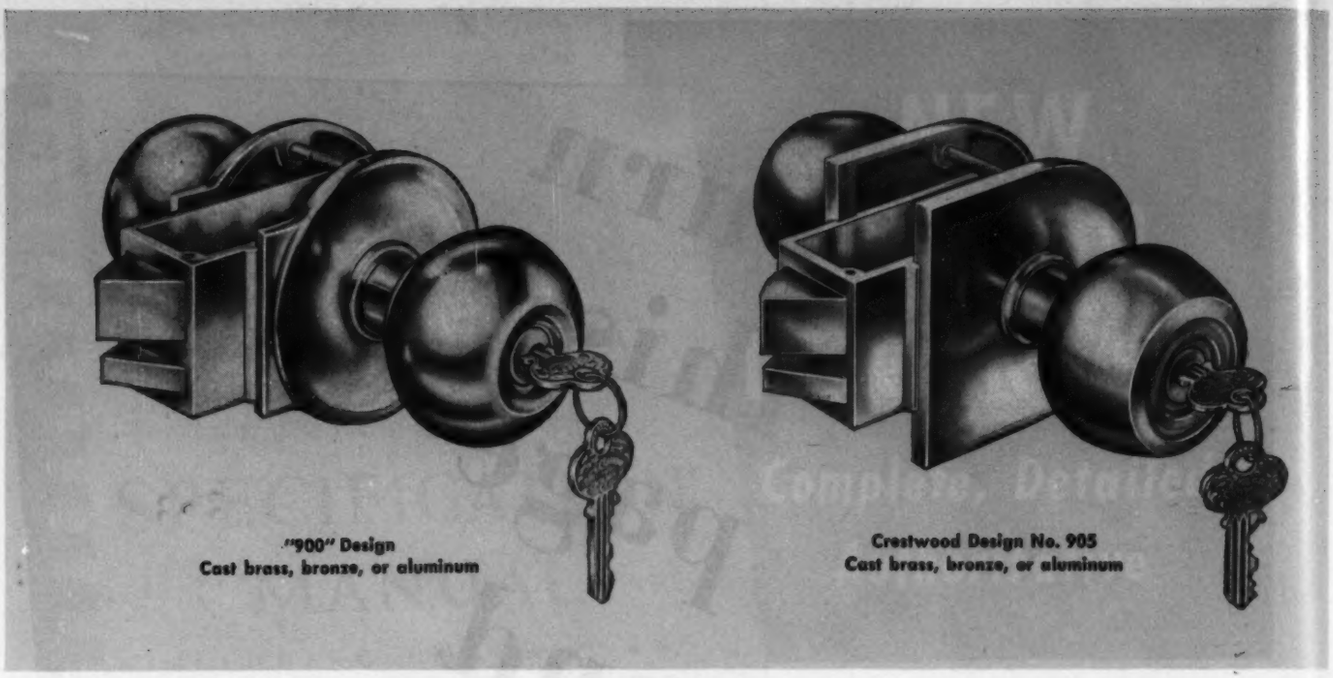
A Dependable Name in Paint since 1849

NEW YORK • BUFFALO • CHICAGO • FORT ERIE, ONTARIO

Turn this page and see why...

Thousands of installations have proved that Corbin UNIT Locks have no equal for strength, functional smoothness, and trouble-free operation. And now, even more than ever before, new styling and new construction features make Corbin UNIT Locks your wisest possible choice for heavy duty service on any building.

Today's biggest news in locks is happening right now at CORBIN®



"900" Design
Cast brass, bronze, or aluminum

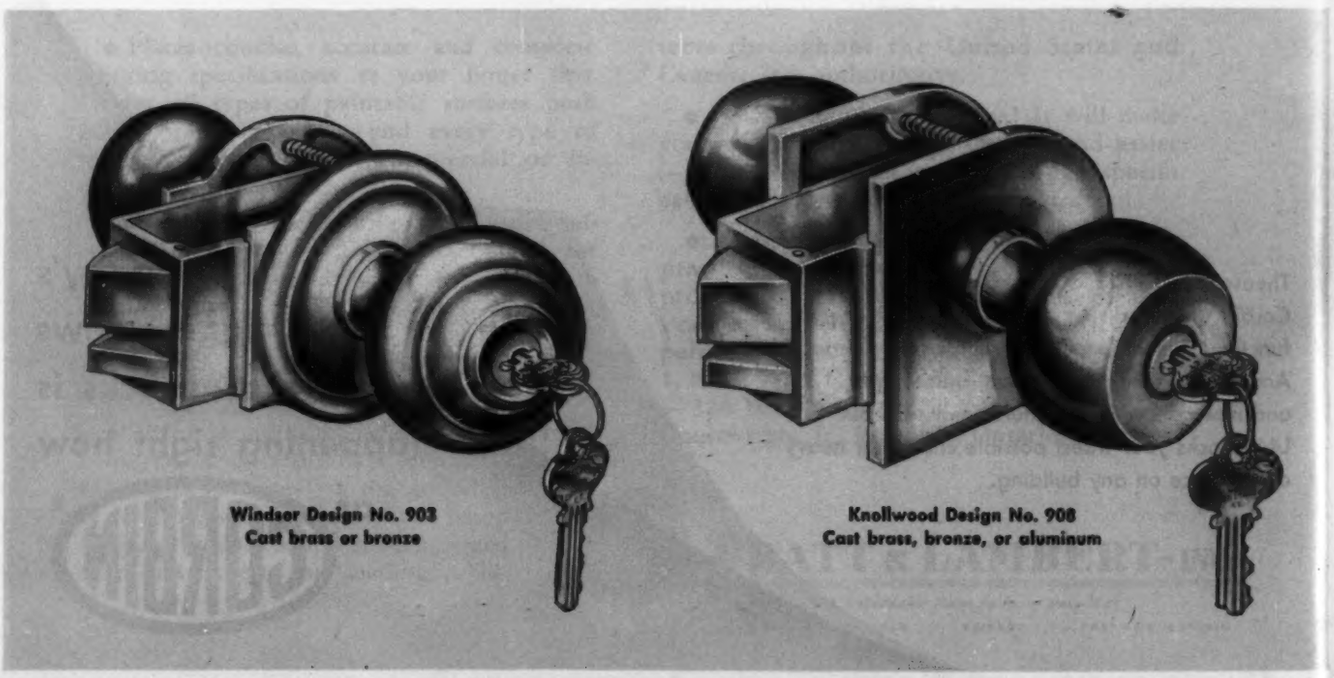
Crestwood Design No. 905
Cast brass, bronze, or aluminum

New Designs...New Features for Corbin UNIT Locks!

You can see the improved styling of Corbin UNIT Locks. Five handsome designs — available in cast brass, bronze, or aluminum metal in all popular finishes — give you a broader selection than ever before. You can see, too, that the inside escutcheon plates have been changed. Inside and outside escutcheon plates are now identical, presenting better-balanced, more pleasing appearance on the door.

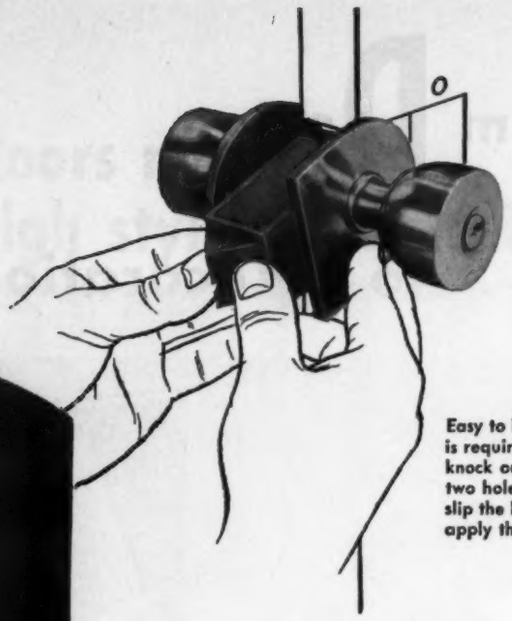
Add to that these internal improvements that speed installation and provide even longer life: 1 — All functions fit into a uniform cut-out in the door. 2 — All internal and working parts are constructed of non-ferrous metal and zinc-plated dichromated steel. 3 — Lock frames are ruggedly made of one-piece extruded brass. 4 — All operating mechanisms have been made stronger than ever.

The result is that *now*, even more than before, Corbin UNIT Locks are your wisest possible choice for heavy duty service. In addition, of course, Corbin offers you a complete line of highest-quality, matched-finish Builders' Hardware . . . a line that through honest service and honest value has become *the world's most widely-used builders' hardware.*



Windsor Design No. 903
Cast brass or bronze

Knollwood Design No. 908
Cast brass, bronze, or aluminum



Easy to install. No mortising is required; just two saw cuts, knock out the block, drill two holes for through bolts, slip the lock into place, and apply the through bolts.



Titan Design No. 904
Cast brass, bronze, or aluminum

What have Corbin UNIT Locks got that other locks haven't got?

Thousands of installations have proved that the smooth operation, easy installation, and trouble-free performance of *factory-assembled* Corbin UNIT Locks cannot be equaled . . . for the same reasons that even the finest wrist watch cannot equal the performance standards of a larger railroad watch: The parts are bigger and stronger because of the greatly increased interior area. Moreover, Corbin UNIT Locks are factory-assembled for one-piece installation on the job . . . there is nothing to take apart . . . there is nothing to put together. Even slight variations in door thickness will not affect proper installation and performance.
Acceptable for Class B label doors.

CORBIN®

P & F CORBIN Division
The American Hardware Corporation
New Britain, Connecticut

from Design to Decoration



LOWELL Is Preferred for Profitable Sound Installation

From the architect's designing to the decorator's final touch, Lowell "ear level" sound equipment is the preferred line. You will prefer it too — *for profits!*

Over 100 models in one line are offered by Lowell in: Ceiling Baffles • Wall Baffles • Speaker Grilles • Speaker Enclosures • Combination Speaker Baffle and Circline Fluorescent Light Fixtures • Mounting Accessories • Intercom Systems.

Used in more large installations such as railroad stations, airports, schools, hospitals and factories than any other make, Lowell equipment is designed for quick, simple installation . . . comes complete with instructions and mounting accessories.

Lowell Grilles

Illustrated above is a Lowell Square Perforated Metal-Type Grille (JG Series). Made of sturdy steel with 3/16" folded corners, the JG Grille adds an attractive appearance to any room. It may be installed on either wall or ceiling. Five Grille sizes in the JG Series range from 7" to 14¼". Grilles may be purchased separately or as complete speaker enclosure assembly for existing construction. Standard finish of grille is flat white.

Lowell Ceiling Baffles (SR SERIES) with "Floating Conical Action"



High Ceiling Type Baffles (SR Series)

Specially designed for use in churches, auditoriums, railroad stations or any high ceiling area, the Lowell High Ceiling Chandelier-Type Baffle effectively overcomes the acoustical problems of echo reverberation and feedback. Exclusive "Floating Conical Action" provides *controlled* sound distribution throughout 360°. The diffusing cone is supported through rubber grommets by four ¼" formed aluminum rods. Constructed of spun aluminum, Lowell SR Baffles are available in natural satin finish or in a variety of colored lacquer finishes.

Before you specify — see the *preferred* line — Lowell: world's largest-used line of sound installation equipment. Write for complete catalog and information to:

HEARD EVERYWHERE

Lowell MANUFACTURING COMPANY

see our catalog in S or write for copy

3030 LACLEDE STATION ROAD, ST. LOUIS, MO., U.S.A. • In Canada: Atlas Radio Corp., 560 King St., West, Toronto, Canada

Vina-Lux® floors make high style good business



Benjamin Kenneth Wyatt, Architect, San Antonio

Businesses that meet the public know the value of attractive floors. That is why so many are finding Vina-Lux, America's leading vinyl-asbestos tile, the best answer to their flooring problems.

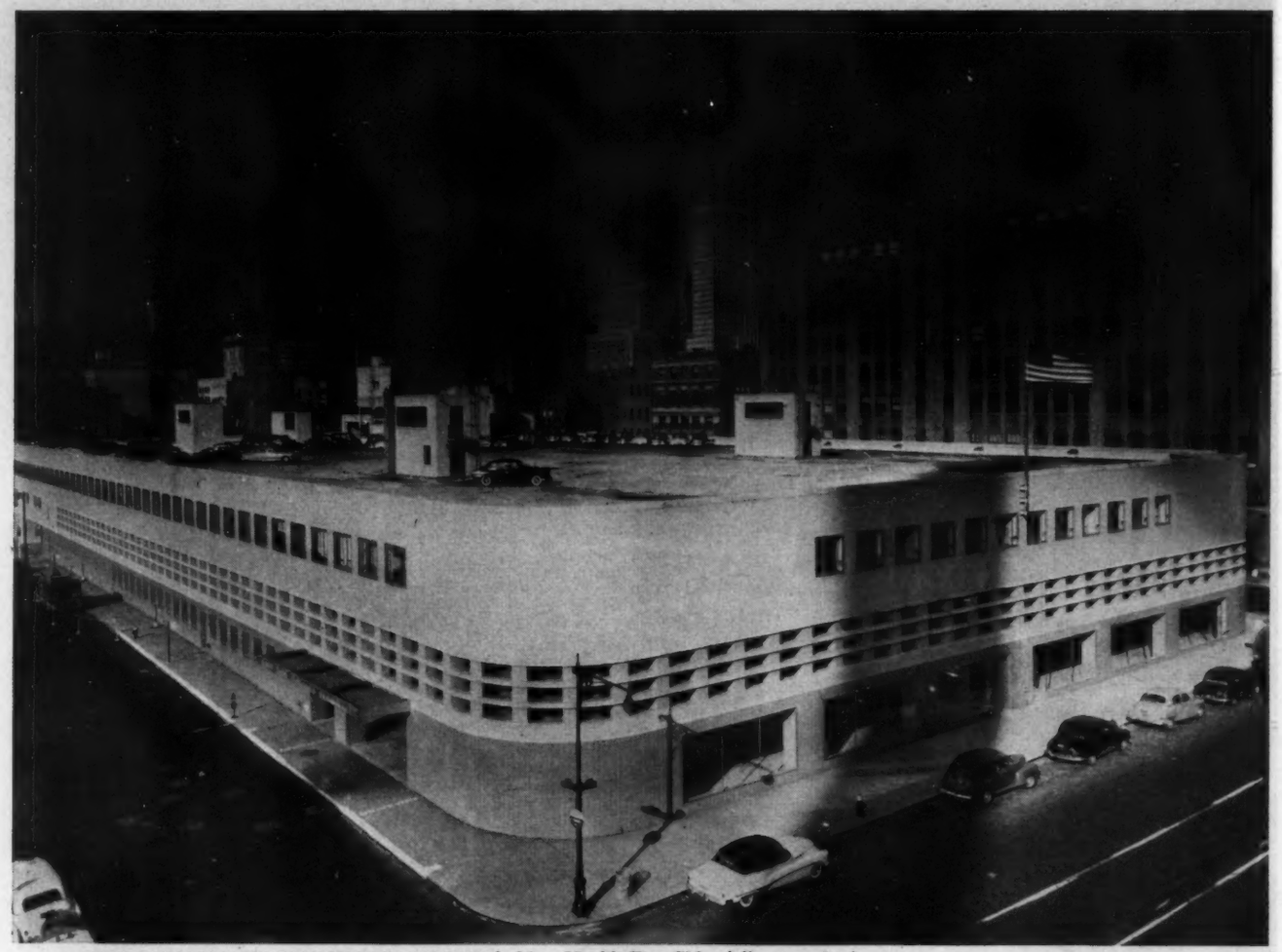
Vina-Lux has everything that shop and office areas need, from a flooring standpoint. Its broad line of sparkling up-to-the-minute colors makes possible any decorative plan — its super-smooth surface needs no waxing and makes cleaning easy and inexpensive. Its vinyl-asbestos structure has remarkable resistance to chemical abuses of all kinds whether they be from food fats, petroleum oils or alkalis. Vina-Lux gives you years of added wear because it's tougher and denser — less susceptible to the grinding action of abrasive foot traffic.

Longer life, lower maintenance cost, more beauty — you get all these at moderate cost. Write today and ask us to have a qualified representative present the full Vina-Lux story to you.

Vina-Lux®

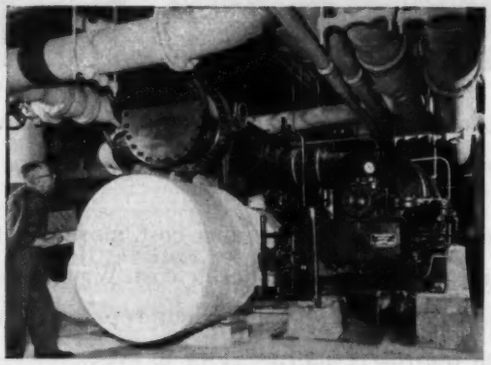
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WORTHINGTON AIR CONDITIONING SYSTEM in New York's East Side airline terminal . . .

. . . cools 12,000 airline passengers a day



CHILLED WATER to air condition new airline terminal is supplied by this efficient Worthington centrifugal refrigeration unit.

Passengers stay cool and comfortable in New York City's new East Side Airline Terminal while waiting for their trip to the airports.

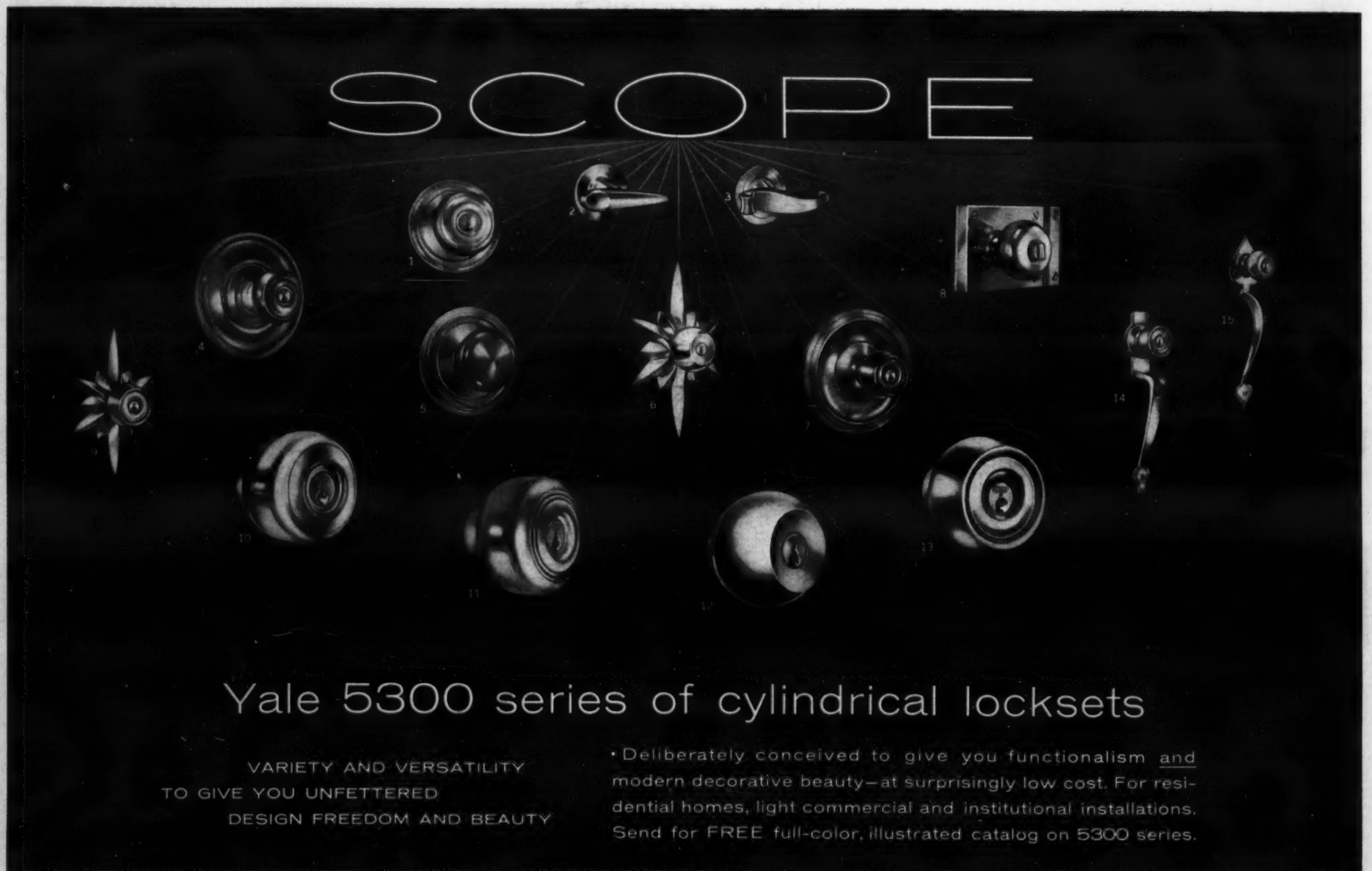
A joint enterprise serving 21 U. S. and foreign flag airlines, the new terminal accommodates over 12,000 people a day.

And for this modern building, nothing less than a truly modern air conditioning system would do. That's where Worthington came in. A Worthington-engineered, Worthington-built 315-ton centrifugal refrigeration system, along with Worthington air handling equipment and pumps, carries the entire cooling load for the terminal's 3,300,000 cubic feet of space.

Worthington air conditioning equipment has been the choice of leaders in business and industry for over 50 years. For the reasons why, write Worthington Corporation, Air Conditioning and Refrigeration Division, Section A.5.36.FO, Harrison, New Jersey. A.5.36-R

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CLIMATE ENGINEERS TO INDUSTRY, BUSINESS AND THE HOME



Yale 5300 series of cylindrical locksets

VARIETY AND VERSATILITY
TO GIVE YOU UNFETTERED
DESIGN FREEDOM AND BEAUTY

• Deliberately conceived to give you functionalism and modern decorative beauty—at surprisingly low cost. For residential homes, light commercial and institutional installations. Send for FREE full-color, illustrated catalog on 5300 series.

Eight new escutcheons that combine with four new knobs . . . two new entrance handles . . . two new lever handles: 1. Troy with Norfolk escutcheon. 2. Deauville lever handle. 3. Guilford lever handle. 4. Troy with Madison escutcheon. 5. Litchfield with Savoy escutcheon. 6. Classic with Dallas escutcheon. 7. Nassau with Newport escutcheon. 8. Litchfield with Williamsburg escutcheon. 9. Nassau with Constellation escutcheon. 10. Litchfield knob. 11. Troy knob. 12. Classic knob. 13. Nassau knob. 14. Arlington entrance handle. 15. Westbrook entrance handle.

YALE REG. U. S. PAT. OFF.

YALE & TOWNE

THE YALE & TOWNE MFG. CO., LOCK & HARDWARE DIV., STAMFORD, CONN.

Certain-teed

REG. U.S. PAT. OFF.

LITE-MIX* GYPSUM PLASTER

CAN BE USED TO MEET CODE REQUIREMENTS FOR FIRE RESISTANCE

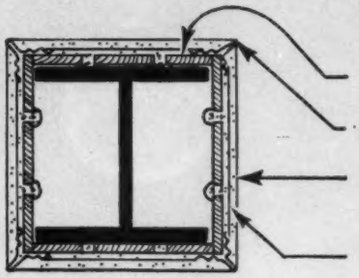
LITE-MIX is a premixed plaster —gypsum combined with expanded Perlite. Only water need be added at the job site to get uniformly strong walls. *And* Lite-Mix is more fire resistant than sanded plaster.

Lite-Mix, 50% lighter than sanded plasters, greatly reduces dead load. This is important in new construction and in additions and alterations to existing buildings.

These diagrams show column fireproofing with Certain-teed Beaver Lath and Lite-Mix Plaster. Equal fire resistance is possible in other constructions. Write to Certain-teed for full details.

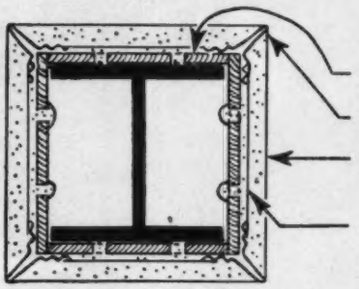
**T.M. Reg. Pat. Pend.*

Note: *Certain-teed materials shown in the diagram meet ASTM Standards for the various gypsum products included in tests made by the Gypsum Association at the National Bureau of Standards.*



1 HOUR

- 3/8" Perforated Beaver Lath
- Corner bead wire tied in place
- 1/2" Lite-Mix (1 application double-up)
- Tie wire around lath to hold in place

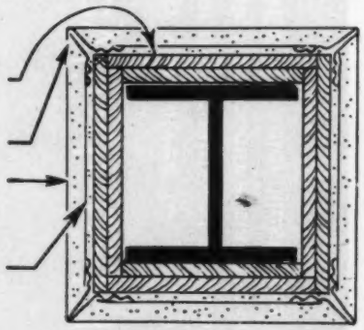


2 HOUR

- 3/8" Perforated Beaver Lath
- Corner bead wire tied in place
- 1" Lite-Mix (1 application double-up)
- Tie wire around lath to hold in place

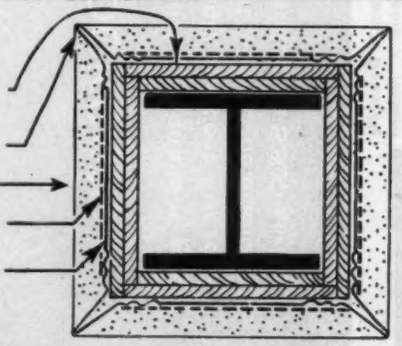
3 HOUR

- 2 layers 1/2" thick plain Beaver Lath
- Corner bead wire tied in place
- 1" Lite-Mix (1 application double-up) (including white coat)
- Tie wire around lath to hold in place



4 HOUR

- 2 layers 1/2" plain Beaver Lath
- Corner bead wire tied in place
- 1 1/2" Lite-Mix
- 20-gauge galv. 1" mesh wire around lath
- Tie wire around lath to hold in place



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POWERS

Thermostatically controlled shower baths



Powers Control Saves Water
No time or water is wasted by bather having to get out from under shower due to fluctuating temperature. Water conservation alone helps pay back its cost.

(c19)

Why Famous Guests in *The Beverly Hilton* Hotel will enjoy the best, worry-free showers they ever had:

- Shower temperature *always* remains constant wherever bather wants it regardless of *pressure or temperature* changes in water supply lines.
- There is no danger of accidents caused by slipping and falling while trying to dodge an unexpected shot of hot or cold water.
- Failure of cold water supply instantly and completely shuts off the shower.
- No danger of scalding caused by "dead ends" in water supply lines. Powers *thermostatic safety limit* automatically shuts off shower at 115°F.

Consult Powers on Shower Planning. For engineering data on thermostatic control for all types of baths call your nearest Powers office or write us direct.

- **Service** available, if required, in chief cities in U.S.A., Canada and Mexico.

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Over 60 years of Automatic Temperature and Humidity Control

There's a place for LOXIT in your plans...



LOXIT FLOOR-LAYING SYSTEM

It's SO simple and SO practical. It requires NO nails, NO wood sleepers, NO adhesives. Loxit solves the problem of wood floors laid on concrete.

LOXIT CHALKBOARD SYSTEM

Includes LOXIT-TYLAC Rite Green Chalkboards and Tackboards, LOXIT TRU-SNAP All-Aluminum Trim and a complete line of accessory items.

LOXIT VICTORY ACOUSTICAL SYSTEM

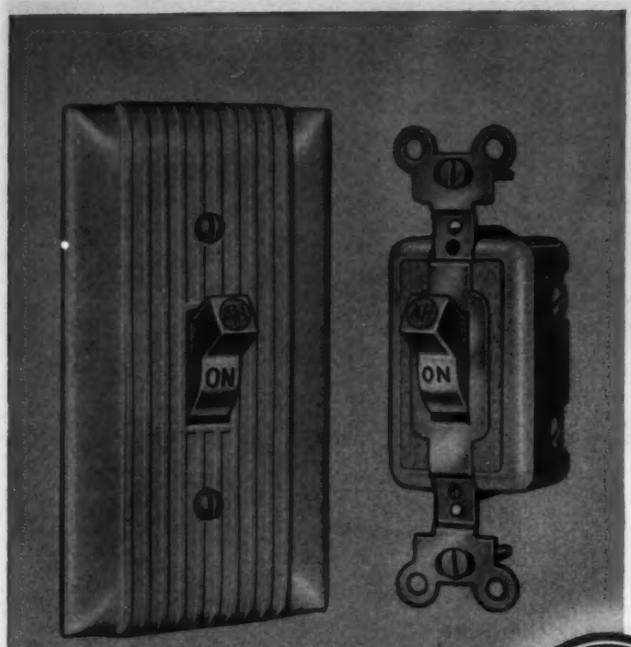
The new improved Loxit VICTORY Acoustical Suspension System is really three systems in one—"X" Regular*—"Y" Surface Applied—"Z" Combination.



Consider the many proven advantages of the Loxit Systems—how they simplify construction problems, meet unusual conditions, assure permanent beauty, and reduce maintenance costs. In 1953, more new schools, gymnasiums, field houses, office and factory buildings profited by these advantages than ever before. All Loxit Systems have one thing in common: they are simple in principle. Because of this, they are easy to erect and assure years of trouble-free service. Keep this in mind in your own planning.

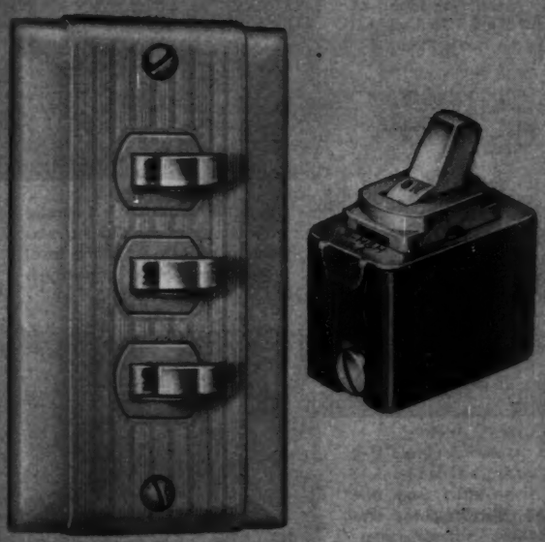
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LOXIT SYSTEMS, INC., 1217 W. WASHINGTON BLVD., CHICAGO 7, ILL.



LIFETIME *Quiette* SWITCH

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INTERCHANGEABLE *Quiette* SWITCH

a source of
quiet satisfaction
for your clients

the Complete Line

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LIGHT SWITCHES

Today, the light switch that makes hardly a sound is the one that provides a sound basis for building customer satisfaction. So when specifying, make your selection from the complete line of **SPECIFICATION GRADE QUIETTE LIGHT SWITCHES.** They offer quiet, safe operation, without mercury — for both incandescent or fluorescent lights and appliances; screw or screwless terminals.

LIFETIME ratings: 15 amp — 120-277 volt ac only; 20 amp — 120-277 volt ac only.

INTERCHANGEABLE ratings: 15 amp — 120-277 volt ac only.

Both available in single and double pole; 3- and 4-way; Brown or Ivorylite; listed as standard by Underwriters' Laboratories.

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THE ARROW-HART & HEGEMAN ELECTRIC CO.
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Huttig Sash & Door Co., St. Louis Plant



"Gas restrictions don't affect this all-gas, dual fuel heating system"...



.... *Says* Architect Cay G. Weinel
3837 W. Pine, St. Louis

"In areas with gas restrictions, it can be good economics to select an all-gas, dual fuel heating system. A propane-air or butane-air mixture is used as a substitute for natural gas. This stand-by gas uses the same fuel lines. On large installations requiring extensive dual-piping for other fuel types, it may prove less costly to install the single pipe, L-P gas/air system. And the fuel change-over is made on a moment's notice by the operation of only two levers," says Mr. Weinel.

"In the new Huttig plant, where this system was used, Janitrol Heaters were selected because we were confident of the results. Years of experience with Janitrol units have proven to me their merit for fine performance and minimum maintenance requirements."

For design and specification information, write for A.I.A. Files on Commercial and Industrial Gas Heating.

L-P SUPPLY →

This battery of storage tanks provides the stand-by supply of L-P gas for the 37 Janitrol Unit Heaters in the Huttig Plant.



← AIR MIXING

Here the propane is blended with the air to a 1375 Btu mixture, a substitute for the local natural gas. Mixer capacity is 7,000,000 Btu/hr.



UNIT HEATERS →

Each of these Janitrol Unit Heaters, equipped for complete shut-off, is switched from one fuel to the other from one central location, without interruption.



Janitrol
GAS-FIRED UNIT HEATERS

Janitrol Heating & Air Conditioning Division
Surface Combustion Corporation, Columbus 16, Ohio
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ALSO MAKERS OF *Surface* INDUSTRIAL FURNACES AND *Kathabar* HUMIDITY CONDITIONING



RECOMMENDED APPLICATION OF BEVEL SIDING

Use rust-resisting casing nails, not less than 6d for bevel and 8d for bungalow. Nails should be located at each stud above lap as shown in diagram. Minimum headlap (FHA) should be 1″ for 4″ and 6″ siding, 1¼″ for widths over 6″.

This nailing procedure is recommended to prevent any possibility of cupping or splitting. Tip of siding is left "floating free" to allow for normal dimensional changes. Siding nails should be set and puttied. (Note: If necessary, to prevent splitting near ends of pieces, holes should be prebored through the siding for the nails.)

USE WEST COAST LUMBER FOR DISTINCTIVE SIDING

Siding of versatile West Coast lumber, with its natural pattern lines and flexibility of use, offers the widest variety of interest-arousing treatments. Wood performs better, too... for lumber is durable, has high insulation value, and is easy to use, regardless of building style or plan.

Choose from these popular West Coast lumber species... Douglas Fir, West Coast Hemlock, Western Red Cedar and Sitka Spruce.

whatever the job, consider WOOD FIRST!

WEST COAST LUMBER

Douglas Fir • West Coast Hemlock • Western Red Cedar • Sitka Spruce

WEST COAST LUMBERMEN'S ASSN., 1410 S. W. Morrison St., Portland 5, Oregon

Because V-LOK Reduces Erection Costs

A school designed with a V-LOK Steel Frame can be erected and under roof in a very few days—using a minimum of skilled labor and equipment to expense against the job. Interlocking structural members require no bolting, riveting or welding — except anchor bolts.



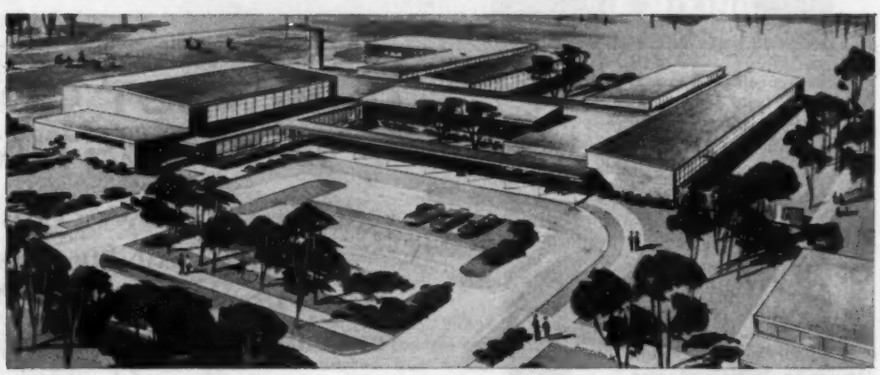
Because V-LOK Gets a School Under Roof Faster

A school under roof in a few days permits craftsmen to move in and start finishing operations for much earlier occupancy. This speed combined with actual economies—per sq. ft.—puts a School Board definitely over on your side for future expansions.



Because V-LOK Designs Readily Into School Layouts

With V-LOK—you're the Architect, unhampered in the most modern layouts you want to design. You have adequate spans and loading capacity plus a practical joining of accessory materials and component structural units. Contact us for design standards.



Illustrated here are three of the many V-LOK Schools designed by Walter Anicka of Ann Arbor, Michigan. At the top is the Saline Elementary School, Commermercial Const. Corp., General Contractor. Second is the Willow Run High School, Birchard & Roberts, Dearborn, Gen. Contractor. Third is the South Lyon High School, A. N. Hickson, Inc., General Contractor, Detroit, Michigan.

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STOPS RUST!

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The *exclusive* Rust-Oleum formula was developed by a Master Mariner during more than 20 years of combating the terrible rust-producing conditions of the sea. It incorporates a *specially-processed* fish oil vehicle that *dries*, is *odor-free*, and is formulated in *many colors*. It may be applied directly over *sound rusted surfaces* after scraping and wirebrushing to remove rust scale and loose particles. See why nearly every type of industry in the world has relied upon Rust-Oleum for over a *quarter century*. Clip the coupon to your letterhead and mail today.

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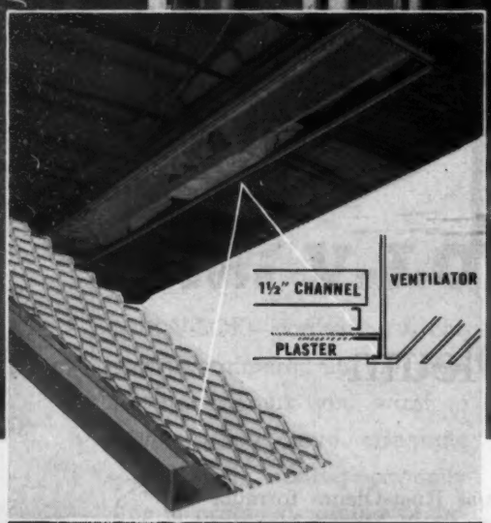
Milcor Casing Bead And Expansion Corner Bead used in light trough

CENTRAL HIGH SCHOOL, Cape Girardeau, Missouri.

Architects — Wm. B. Ittner, St. Louis, Mo.
Fred Dormeyer, Jr., Cape Girardeau, Mo.

General Contractor —
Gerhardt Construction Co., Cape Girardeau, Mo.

Lathing And Plastering Contractor —
S. F. Nothdurft & Son, Jackson, Mo.





(Top) Here, plaster will abut a metal air-conditioning grill in a ceiling. Milcor No. 66 Casing Bead is used to provide a sharp, permanent line of separation.

(Bottom) Milcor Casing Bead acts as trim and grounds for plaster around this window — makes possible perfect corners, and a neat joint flush with the plaster.

In the new Cape Girardeau Central High School, Milcor No. 66 Casing Bead combines with Milcor Smalmesh Metal Lath and Milcor No. 1 Expansion Corner Bead to form light troughs of the clean simplicity typical of today's modern design.

UNUSUAL APPLICATIONS SUGGEST NEW USES FOR MILCOR CASING BEAD

WHEN you want the beauty and simplicity of flush door and window openings, Milcor Casing Bead is always the perfect answer. That's a basic use, of course. But it's not the only one.

Architects are finding that the versatility of Milcor Casing Bead makes it an ideal material to use wherever you want a neat, strong plaster edge — along the top of a suspended light trough, for instance, or around the opening for an air-conditioning grill. Here it offers the same advantages you find in its basic uses: (1) The permanence of steel. (2) Resistance to fire and impact. (3) Neat mitres and joints that are flush with the plaster surface.

Milcor Casing Bead is available in a variety of styles — in solid and expansion-wing types. See our latest Milcor Catalog No. 202. A copy is available to you upon request.

MILCOR®

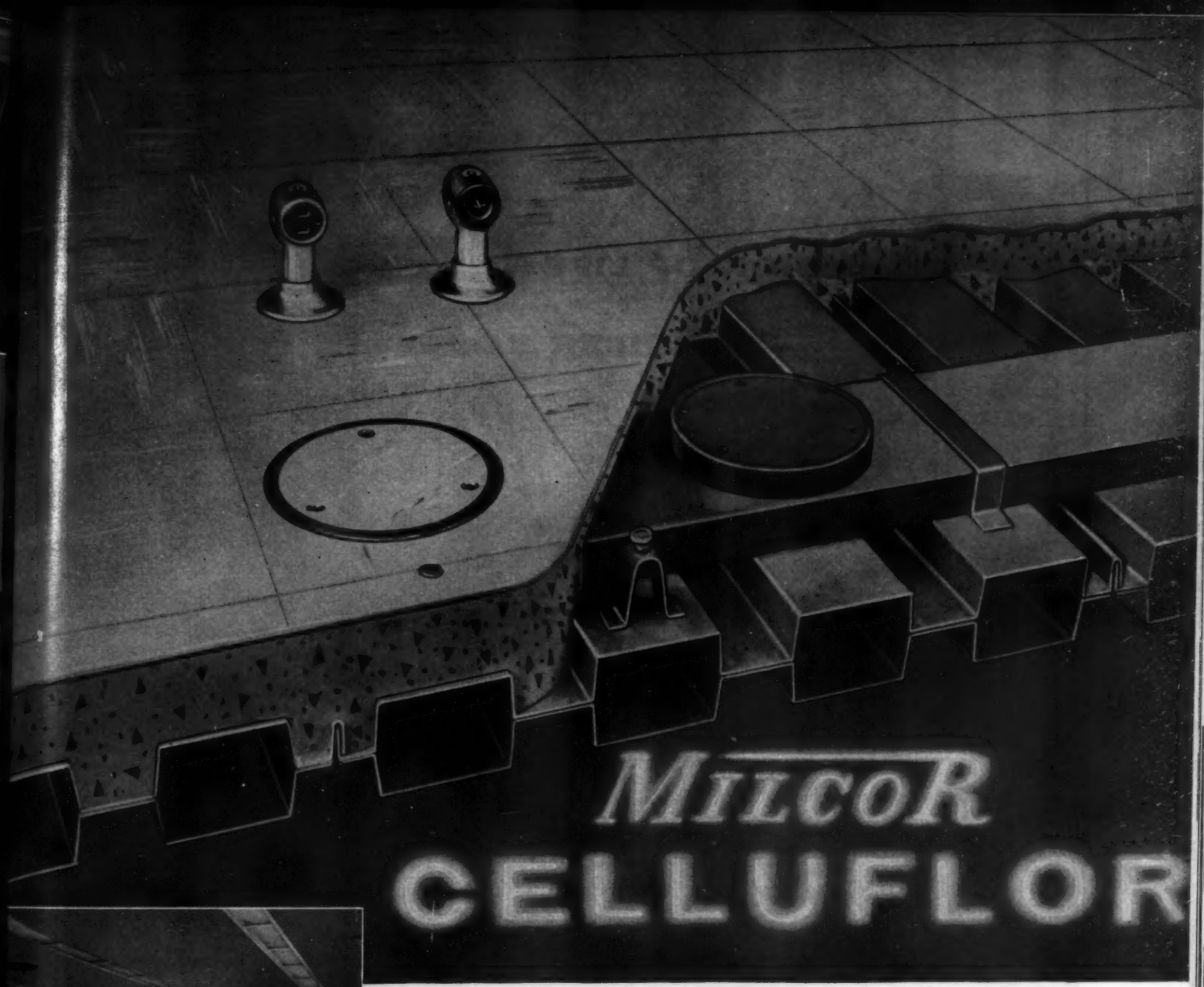
INLAND STEEL PRODUCTS COMPANY

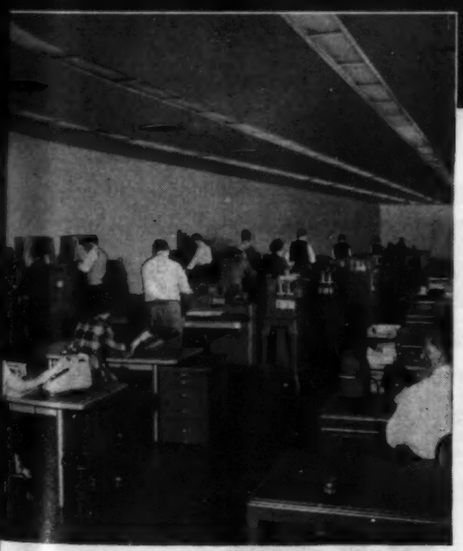
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*Reg. U. S. Pat. Off.

M-141





In today's fast-moving business world, the use of electrified equipment is rapidly increasing. Milcor Celluflor is built-in insurance that your building will meet the greater electrical requirements of tomorrow.

MILCOR® walker of Conshohocken

FLOOR WITH A FUTURE LETS YOU PLAN TODAY FOR TOMORROW'S CIRCUIT REQUIREMENTS

... Milcor Celluflor with Walker Electrification — the electrified floor that has extra strength and durability

HERE'S a steel sub-floor that helps you meet today's increasing need for unlimited flexibility in electrification for both power and telephone service. No matter how complex the system, Milcor Celluflor has ample capacity to handle it. Its cells, spaced on 6-inch centers, permit placement of service outlets at virtually any point on the floor. Besides, these outlets can be moved at any time during the life of the building to meet changing or increasing requirements.

But you get much more than a "floor with a future." You get these outstanding extra features:

1. You get the structural advantage of close cell spacing. In Celluflor, there are eight webs of steel every 24 inches — this provides greater structural strength for special design problems.

2. You get the unexcelled protection of Ti-Co—Inland's continuously galvanized steel with the coating that doesn't flake. It resists the wear of traffic during construction.

Milcor Celluflor steel panels are quickly placed on structural steel members to provide a safe working floor and storage space for all trades during construction. The floor is light in weight and reduces the cost of foundations and structural steel. Wood forms, steel staging, or temporary shoring are unnecessary.

Latest bulletins and planning help are available upon request.

INLAND STEEL PRODUCTS COMPANY

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M-151

PROTECTION OF LIFE BEGINS IN THE BOILER ROOM OF A HOSPITAL . . .



Here are 2 #584 125# Firebox Steam Boilers for gas or oil



Architect—F. O. Wolfenbarger & Associates, Manhattan, Kans.; Engineers—Howarth, Scott & Kinney, Kansas City, Mo.; Heating Contractor—Woodhull Plumbing Co., Manhattan, Kans.

KEWANEE

reserve plus rated boilers . . .

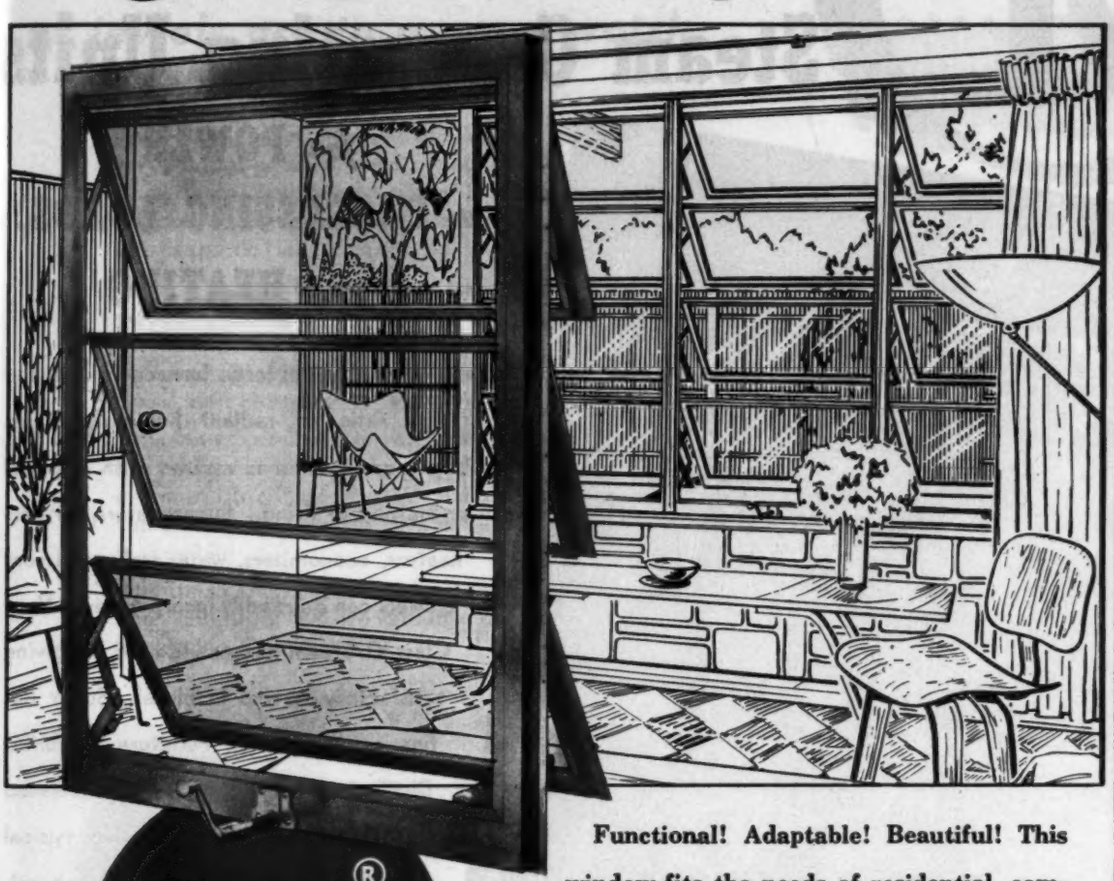
GUARANTEE EXTRA POWER TO MEET EMERGENCIES

When you think of protecting life in hospitals, you probably first think of spotless operating areas, sanitary rooms, fresh clean linen on gleaming white beds. And they're all important, too. But such safeguards would be for naught if power failed in the boiler room when emergency called. So, Architect F. O. Wolfenbarger and Engineers Howarth, Scott & Kinney made sure in planning for the Riley County Hospital, Manhattan, Kansas. Kewanee Reserve Plus Boilers were selected because they are certified to deliver 50% extra power, that measure of protection always "on call" no matter what the need. So, don't be misled by promises that a boiler delivers enough steam to meet average daily requirements. Be sure there is extra reserve to take care of unusual conditions. For that is when performance beyond the call of usual duty is a necessity. Kewanee Reserve Plus Rated Boilers guarantee that protection.



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U-AL-CO ALUMINUM

AWNING WINDOWS

Functional! Adaptable! Beautiful! This window fits the needs of residential, commercial and institutional building.

Modern as tomorrow—with slim, horizontal lines of extra-heavy extruded aluminum. Stays beautiful through all the tomorrows because Ualco's exclusive finishing process preserves its satin-smooth beauty forever! Can't rust, rot, warp and never need painting! Will never require upkeep expenses!



THE COMPLETE LINE

PRECISION-ENGINEERED! ★ Exclusive Strip-Proof completely housed Operator has no separate locking device! ★ Integral fin takes brick fin and fin trim! ★ Jiffy-Quick Sill Clips slide in channel from each side; locate as many as wanted, where wanted. ★ Weatherstripped completely with Koroseal! ★ All vents open up to 90 degrees for 100% ventilation; or bottom vent, only, opens for night ventilation! ★ Easily cleaned from the inside!

ASK ABOUT our Engineering Planning Service, designed to assist architects, engineers and contractors in making "take-offs" and solving window problems.

SEE OUR CATALOG IN SWEET'S ARCHITECTURAL FILE 16A/U OR WRITE US FOR COMPLETE INFORMATION

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WAREHOUSES AND SALES OFFICES: Canton, Ohio; Elizabeth, N. J.; Hialeah, Fla.; Florence, Ala.; Montgomery, Ala.; Van Nuys, Calif.; Greensboro, N. C.; Aurora, Ill.; Ruston, La.; Kansas City, Mo.

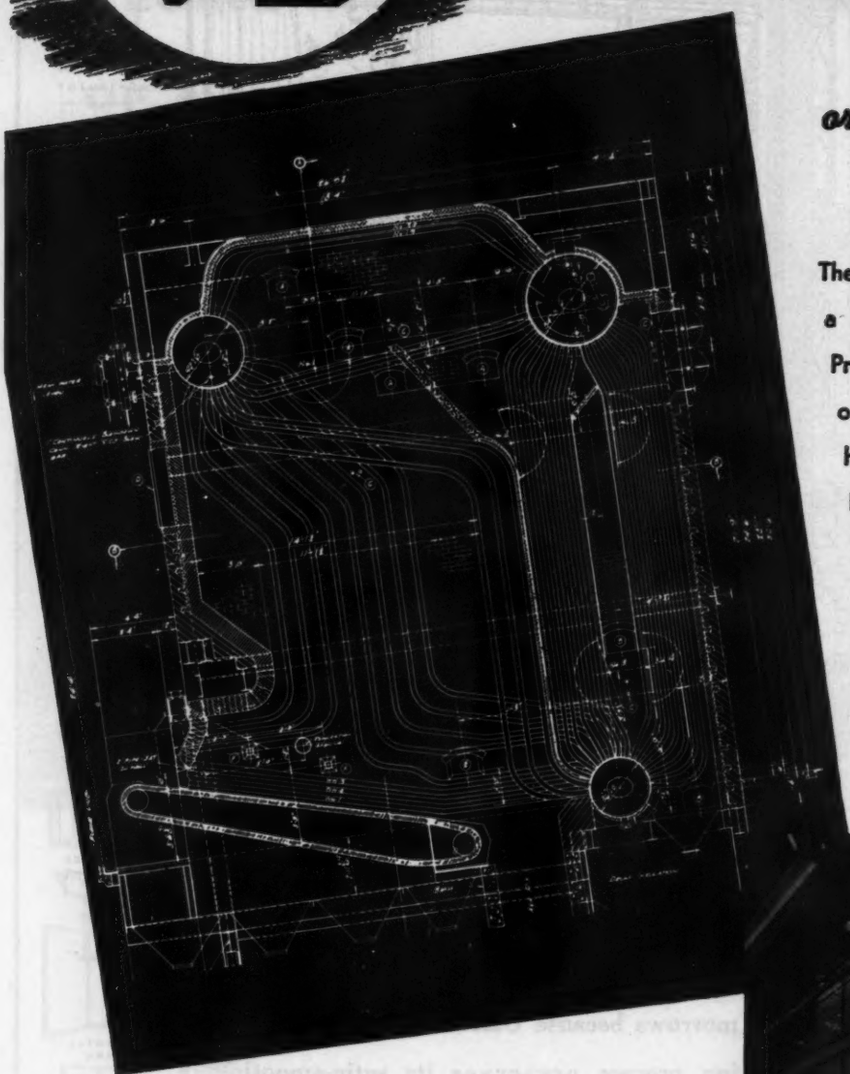
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CLASS **VL**

Vogt

Steam Generating Units

for POWER *or* PROCESSING LOADS, *and* HEATING



The design provides large furnace volume and a high ratio of radiant heating surface. Proper combustion is assured with any fuel or method of firing. Superheaters, air preheaters, economizers, water walls, and soot blowers can be readily incorporated. Vogt Class VL Steam generating units are giving satisfactory service in Hotels, Sugar Refineries, Steel Mills, Furniture Factories, Distilleries, Oil Refineries, and related industries. A bulletin showing typical installations will be sent upon request.

Above:
This 90,000 lbs. steam per hour unit, designed for 475 lbs. pressure, serves the Mansfield Tire & Rubber Co., Mansfield, Ohio.



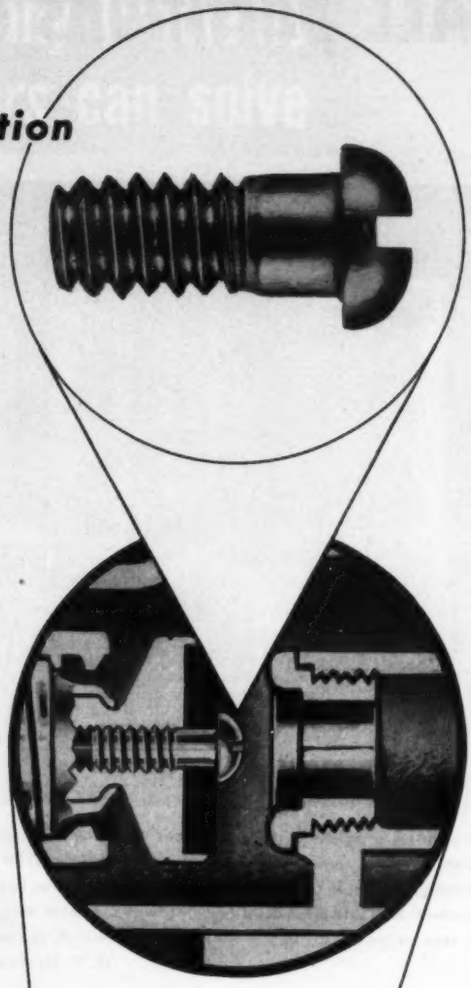


Right:
Two 515 H.P. units installed in Brown-Forman Distillers Corporation, Louisville, Ky. Plant.

HENRY VOGT MACHINE CO. • 1000 W. Ormsby St., Louisville 10, Ky.
Branch Offices: New York, Philadelphia, Cleveland, Chicago, St. Louis, Dallas

TINY, BUT...

as important to performance perfection as jewels are to a good watch

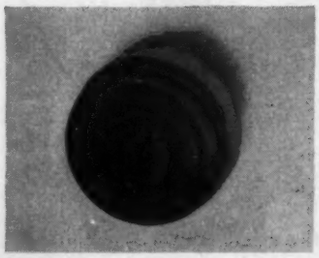


Insignificant, perhaps, yet this Monel screw is actually an essential precision part in the inner workings of the Speakman COMMANDER Valve. It is an example of the calibre of quality standards set throughout the entire COMMANDER Line of products.

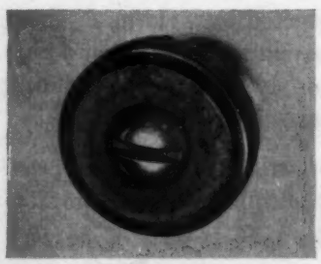
On any valve, the washer retaining screw must resist corrosive action of all types of water for long periods of time. Monel has been found to be the perfect metal to insure trouble-free performance and long life in Speakman COMMANDER Valves.

This screw, combined with COMMANDER'S Monel swivel disc, Monel valve seat, plus almost watch-like precision in the fitting of parts, makes COMMANDER truly the quality line for quality installations—yet the cost is sensible!

Architects and engineers who want the best in showers and plumbing fixture fittings can always rely on Speakman COMMANDER.

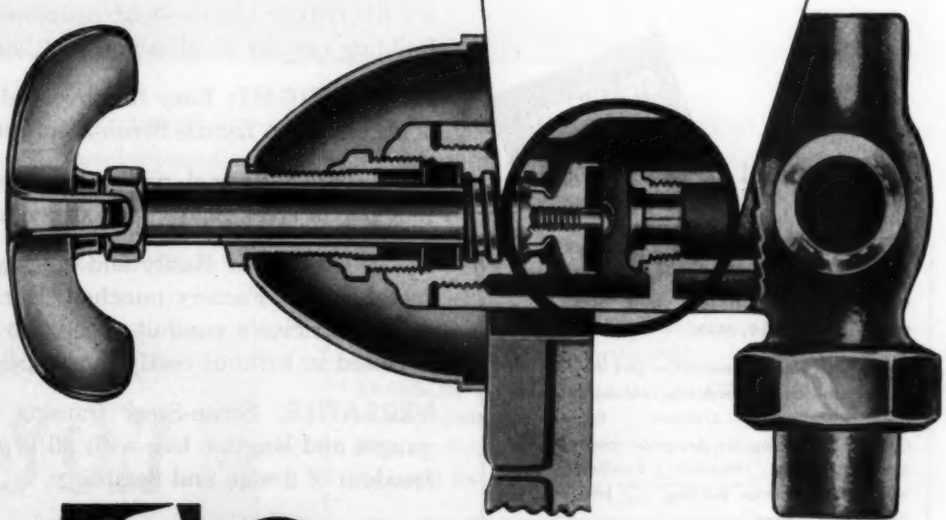


This is how an ordinary brass washer screw looks after a relatively short time in a typical shower valve. Corrosion has damaged this screw to a point where it will probably break and will require drilling and tapping when re-washering.



This is a Speakman Monel Washer-Retaining Screw after 15 years of continuous use in a Speakman COMMANDER Valve. Water has had no visible corrosive action on this screw and it may be removed easily—no need for time-consuming labor.

Remember, our reputation is *built* by the products we make, your reputation is *protected* by the products you specify.



SEE OUR CATALOG IN SWEET'S

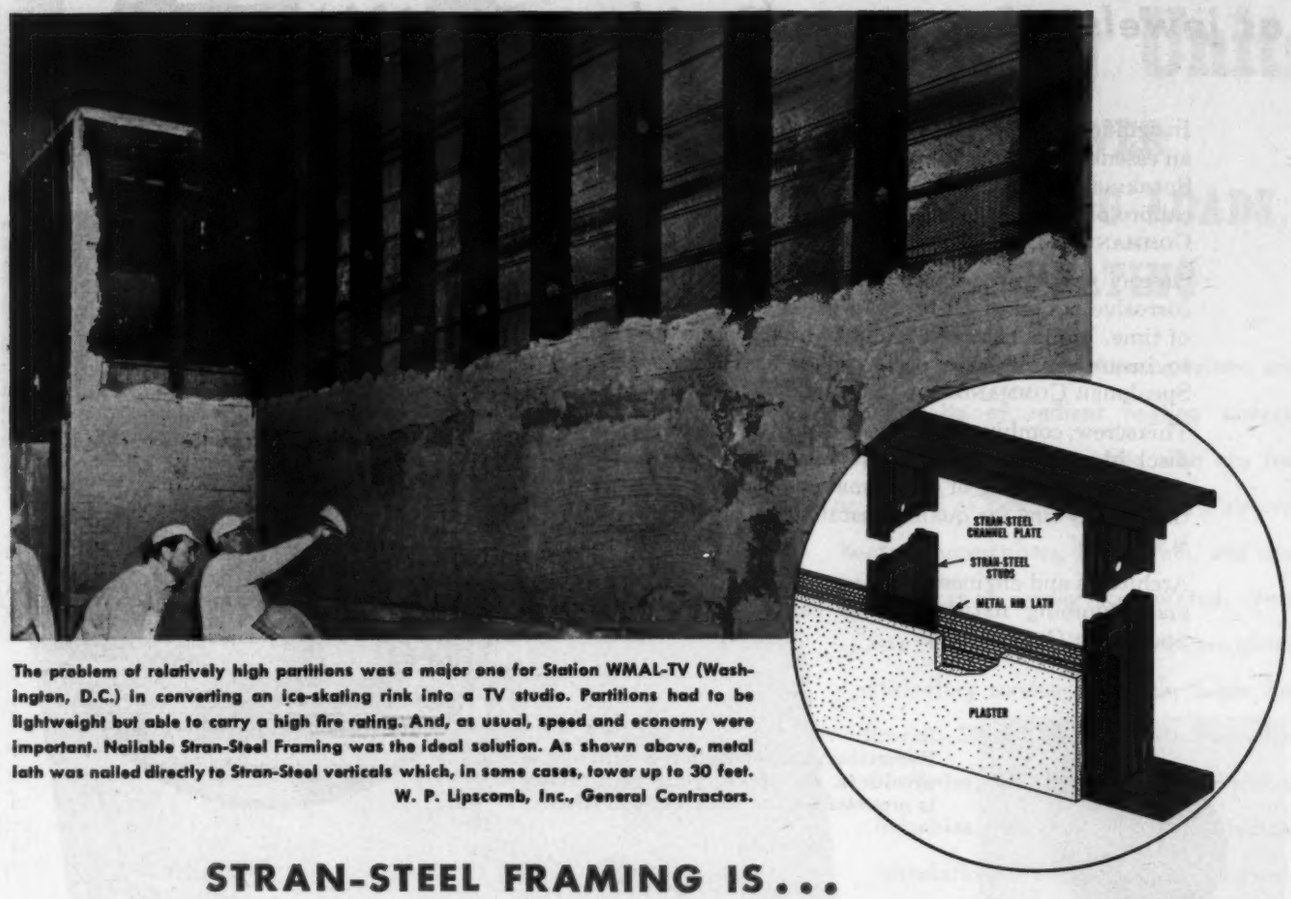
SPEAKMAN

COMMANDER SHOWERS AND PLUMBING FIXTURE FITTINGS

SPEAKMAN COMPANY, WILMINGTON 99, DELAWARE

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with Nailable Stran-Steel® Framing



The problem of relatively high partitions was a major one for Station WMAL-TV (Washington, D.C.) in converting an ice-skating rink into a TV studio. Partitions had to be lightweight but able to carry a high fire rating. And, as usual, speed and economy were important. Nailable Stran-Steel Framing was the ideal solution. As shown above, metal lath was nailed directly to Stran-Steel verticals which, in some cases, tower up to 30 feet.
W. P. Lipscomb, Inc., General Contractors.

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AVAILABLE: On-the-spot distributors and dealers in all major building centers to give you fast, sure, economical service.

LIGHTWEIGHT: Easy to move and place. No special equipment is necessary to handle Stran-Steel members.

NAILABLE: Special nailing groove deforms and clinches nails in a grip of steel. Saves field costs of clips and attachments.

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VERSATILE: Stran-Steel framing comes in standard depths, gauges and lengths. Use with all types of collaterals for complete freedom of design and flexibility.

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Great Lakes Steel Corp.
Ecorse, Detroit 29, Mich.

Please have your representative give me your new catalog and other information, without obligation.
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Company_____

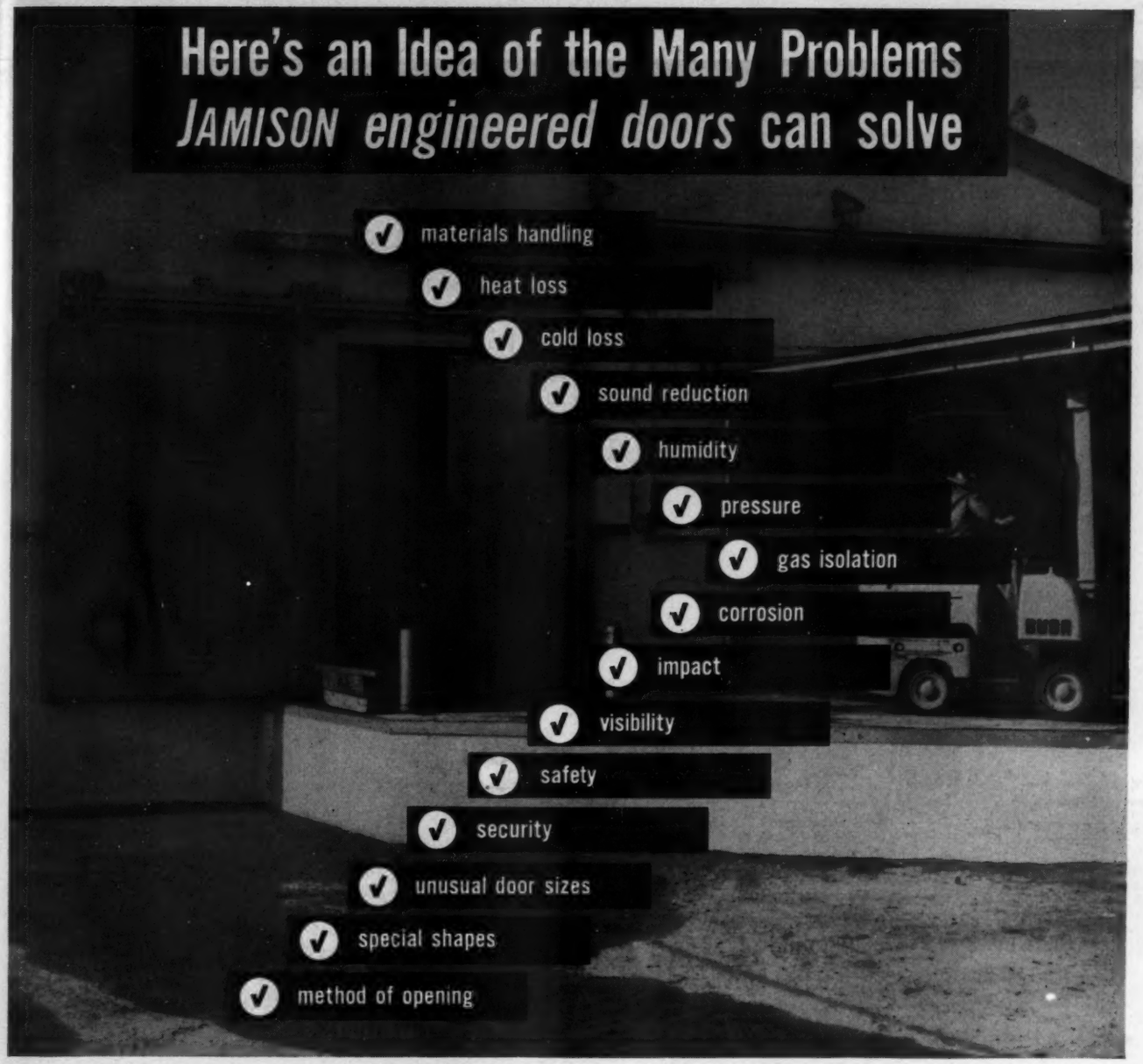
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New Mosler Flush Type "Picture Window" for Drive-in Banking. Note how free and "open" looking window is, how easily customer reaches teller's unit.

The **PICTURE WINDOW** comes to Drive-in Banking

New development by Mosler Safe Company engineers and Henry Dreyfuss is keyed to today's most advanced ideas in drive-in bank design . . . brings even greater security and efficiency to drive-in transactions.

What you see on these pages is a fresh, new concept of the drive-in window as related to both architecture and banking service.

From an architectural standpoint, these new Mosler "Picture Windows" offer a more inviting, "open" look which corresponds to the mood of today's most attractive drive-in bank designs.

From a banking standpoint, they offer vastly increased efficiency and security of operation, because they are equipped with the *only* fully automatic mechanism *in* a drive-in window, today. One touch on an electric push-button sends the teller's unit out . . . opens its cover to an easily accessible 45° angle . . . then retracts it automatically after 15 seconds (or any interval desired). Customers reach it easily . . . even with large bag deposits. And there's no danger of fingers catching, or wind blowing money away. Unit is 100% safe, and wind-proof. Lid of deposit receptacle is glass, so money is never out of customer's sight. There is no chance of embarrassing money errors.

As you'd expect, bankers and savings and loan officials have reacted very favorably to this new "Picture Window" concept since it was announced to them four months ago. An impressive number of new drive-in bank designs incorporating "Picture Windows" are already on architects' boards. And more are coming along. Why not get the details about "Picture Windows" for *your* future use? Mail coupon for new, four-color catalog, today!



New Mosler Bay Type "Picture Window" for Drive-in Banking has same free, "open" look, incorporates same mechanism as flush type.



Inside of new Mosler "Picture Window" is designed for split-second efficiency. Note glass lid of deposit receptacle, which is counterbalanced for effortless operation by teller. Money is never out of customer's sight. Speaker system permits easy conversations . . . leaves teller's hands free. Two big cash and storage drawers are positioned for quick, easy access.

If it's Mosler . . . it's safe

The Mosler Safe Company Since 1848

World's largest builders of safes and bank vaults . . . Mosler built the U. S. Gold Storage Vaults at Fort Knox and the famous bank vaults that withstood the Atomic Bomb at Hiroshima

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"Home Conditioning"

(Integrated with famous VULCAN TRIMLINE)



a new concept in year-round *"Home Conditioning"*

As exciting as the 20th Century!

Never has there been anything like it — the first integrated year-round baseboard heating-cooling system for the American home.

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. . . originators of fin-tube baseboard radiation; and manufacturers of TRIMLINE for residential baseboard heating at its best.

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FA Power Plugin

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The 2 and 3 conductor types provide 220 volt single phase or three phase power to motors while the 4 conductor type provides single or three phase power for motors and 120 volts for machine illumination.



You can add substantially to the efficiency, economy and flexibility of operations of all new or modernized plants that you design by encouraging your clients to install Midget FA POWERPLUGIN — the modern system of power distribution for small equipment — power tools, small machines and motors, return lubricating systems, production benches and machine illumination.

Redesigned to broaden its use through an increase of 66⅔ percent in its capacity and by closer spacing of outlets, Midget FA POWERPLUGIN provides "plug in and go" power for virtually every type of small equipment.

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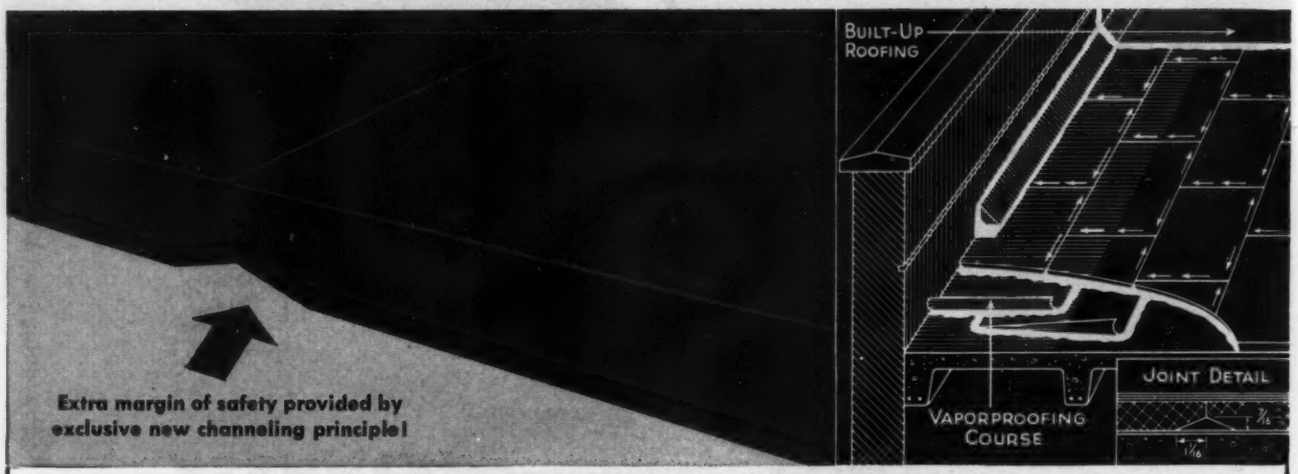
If you want to increase the efficiency and flexibility of your client's plant operations, include Midget FA POWERPLUGIN in your plans and specifications for both new and modernized factories. Your nearest FA representative, listed in Sweet's, will be glad to assist you in planning its installation.

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A unique network of interconnecting channels, formed by Celotex Channel-Seal Roof Insulation units laid on the deck, permits free air circulation beneath roof surface. Along these "escape routes", high-pressure air pockets are constantly being relieved. Result: *Cost-saving protection no ordinary roof insulation can offer!*

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These Celotex Insulation Products Can Simplify, Improve, Cut Costs on Your Construction Jobs!

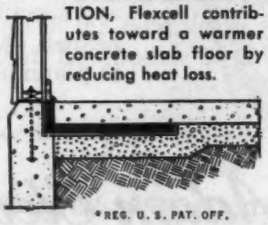
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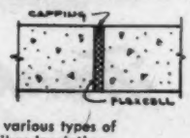
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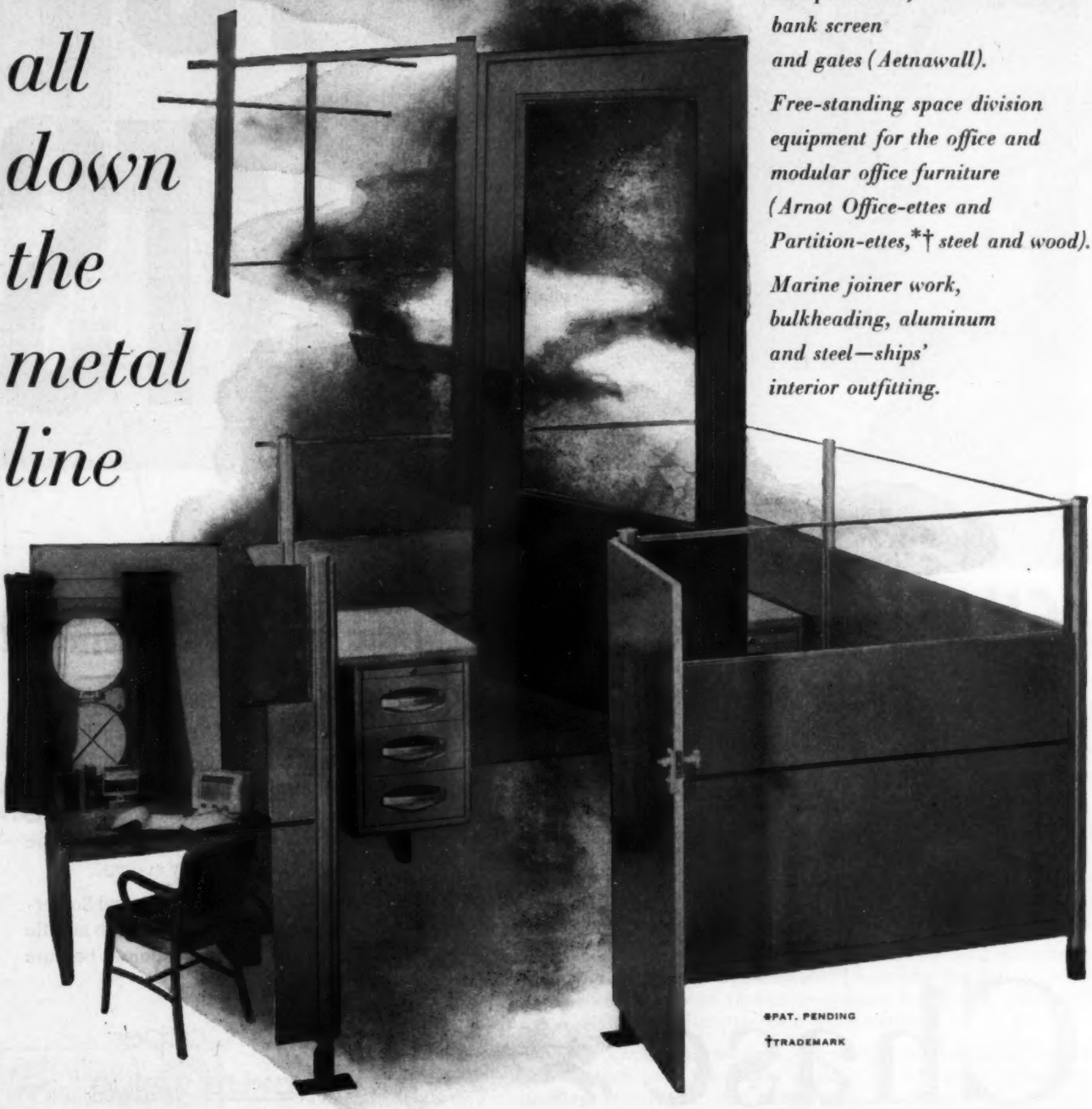
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Once again,

GENERAL BRONZE *leads the way*



America's first building* with COLORED ALUMINUM spandrels

*ALCOA Office Building, Cincinnati, Ohio
Architect: Paul Schell
Contractor: Frank Messer & Sons, Inc.

Pioneering in aluminum curtain wall construction for almost eight years, General Bronze is today recognized as the outstanding leader in this field.

Now, General Bronze adds to its reputation for leadership by fabricating the first *colored* aluminum wall facing panels in an aluminum curtain wall – panels for the new ALCOA office building in Cincinnati, Ohio.

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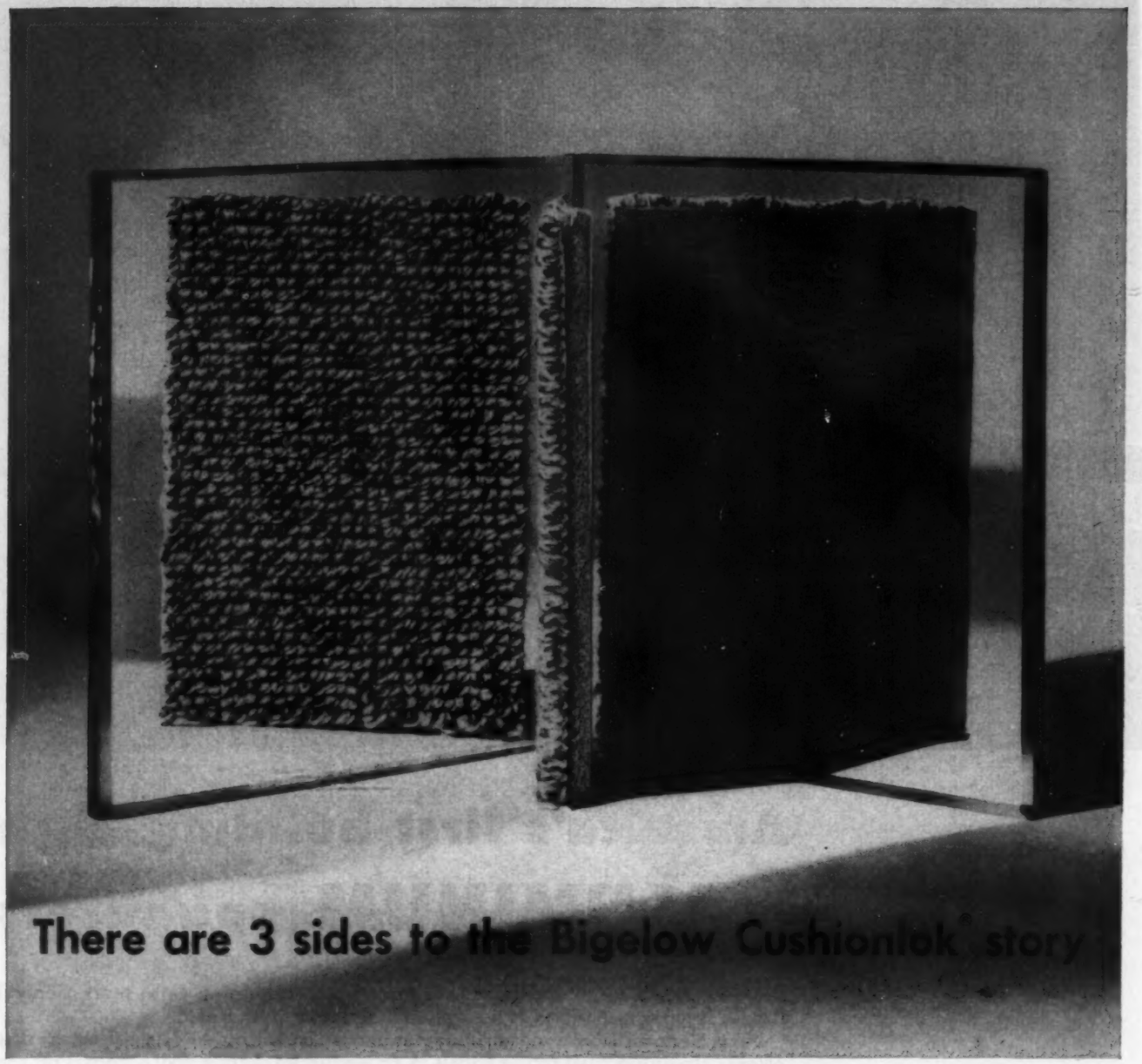
General Bronze is proud that it was selected to fabricate the colored aluminum wall facing panels and the vertically pivoted, reversible windows for this striking new building. It is indeed another tribute to our reputation for quality products, for sound engineering and design and for precision workmanship.

Whether you are planning schools, hospitals, apartments, commercial or monumental buildings – and whether your problems pertain to windows, spandrels, curtain walls or architectural metalwork, our background of 45 years of practical experience can be of real value to you – especially when your requirements are complex or unusual. We will be glad to discuss your problems with you any time. Our catalogs are filed in Sweet's.

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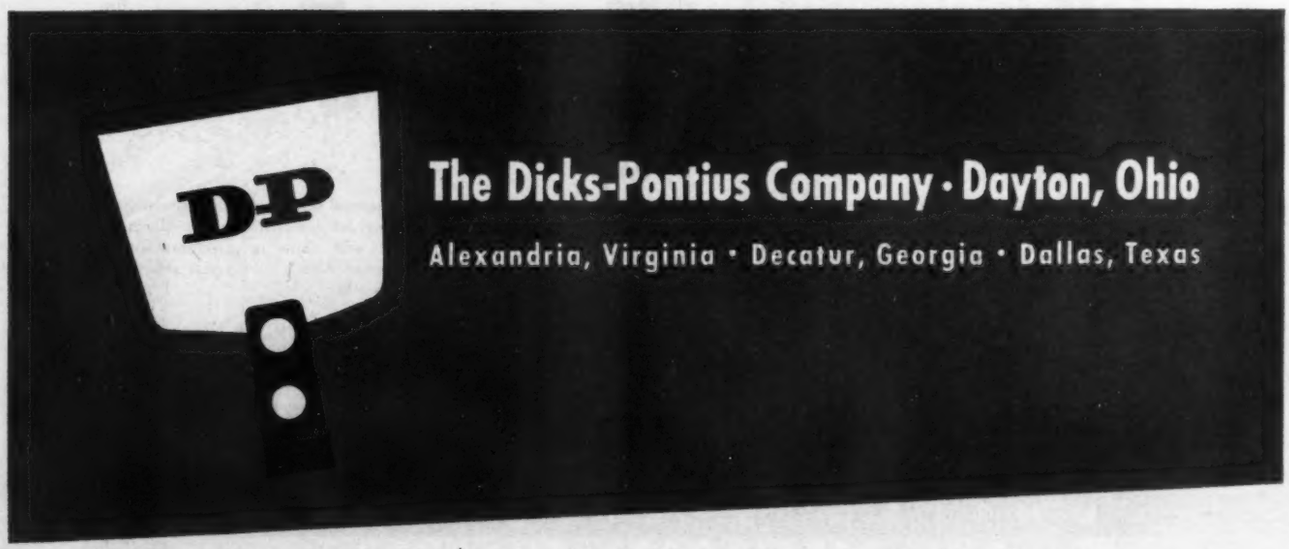
For architects the Cushionlok story is an assurance of quality carpet, expert cooperation by trained Bigelow carpet specialists and a well-spent dollar for a project budget. Get complete details by writing to Bigelow Contract Dept., 140 Madison Avenue, New York 16, N. Y.

see our catalog in ARCHITECTURAL FILE or write for copy

Bigelow SINCE 1825 BIGELOW Rugs – Carpets *Number 1 name in Carpets*



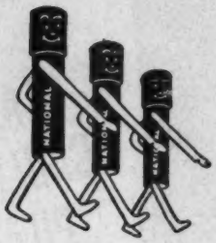
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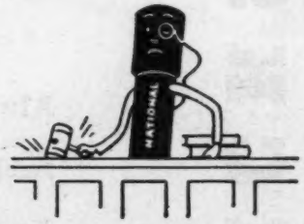
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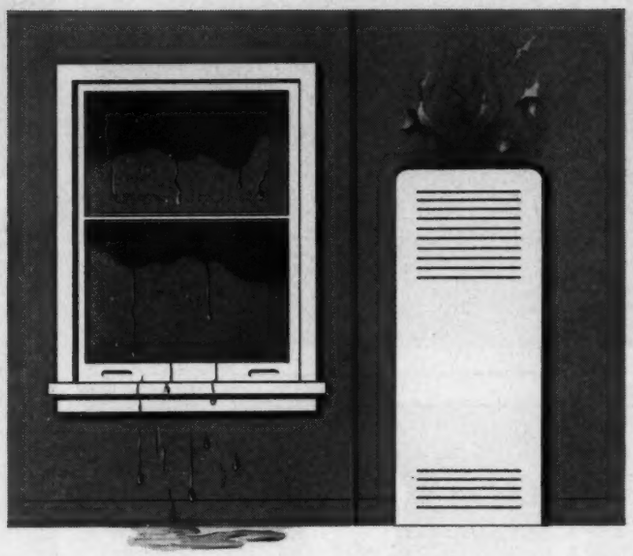
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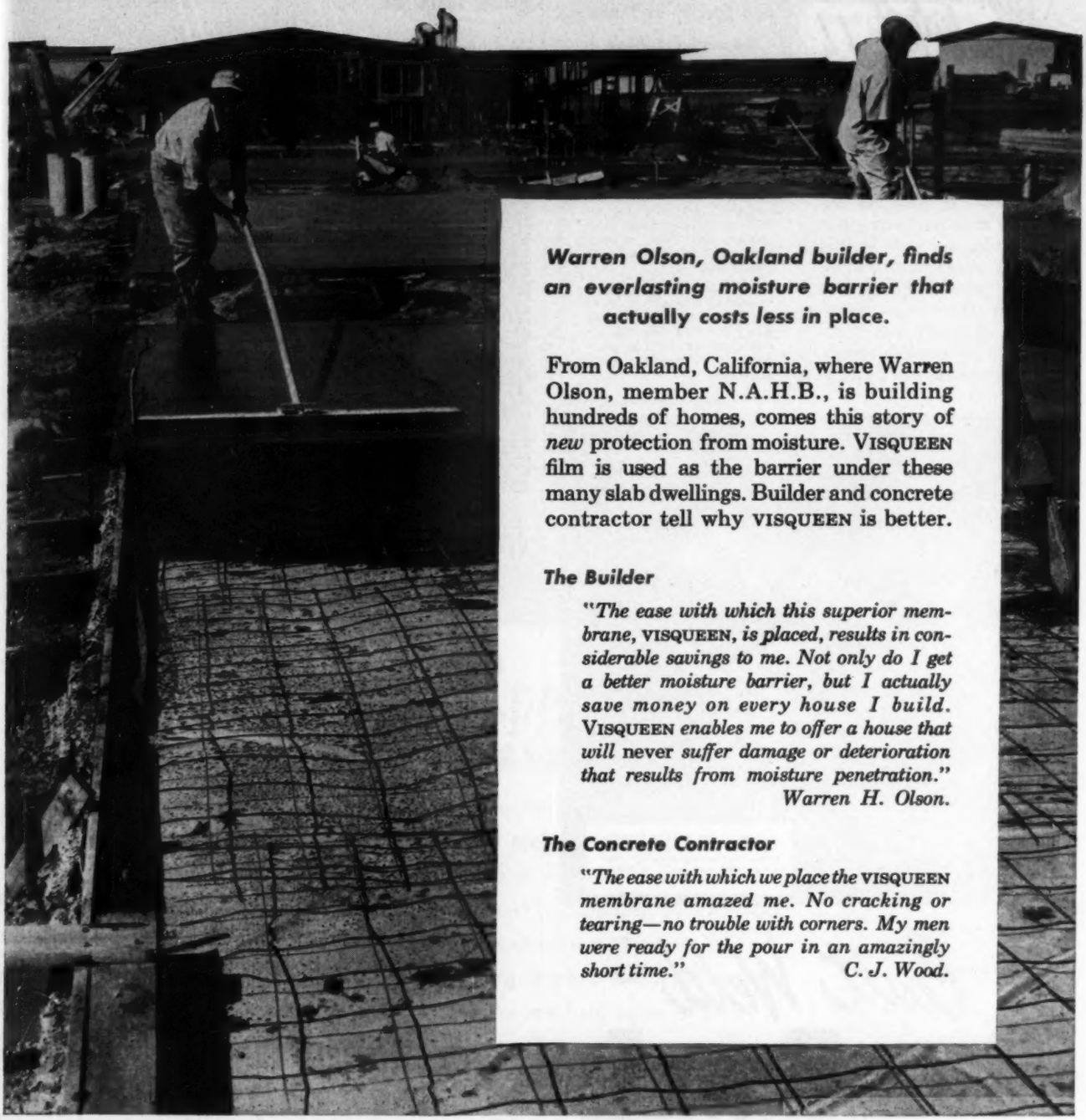
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Warren Olson, Oakland builder, finds an everlasting moisture barrier that actually costs less in place.

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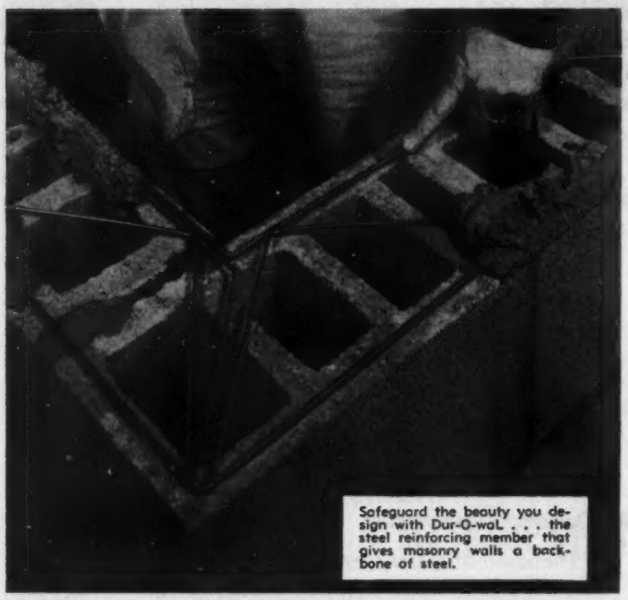
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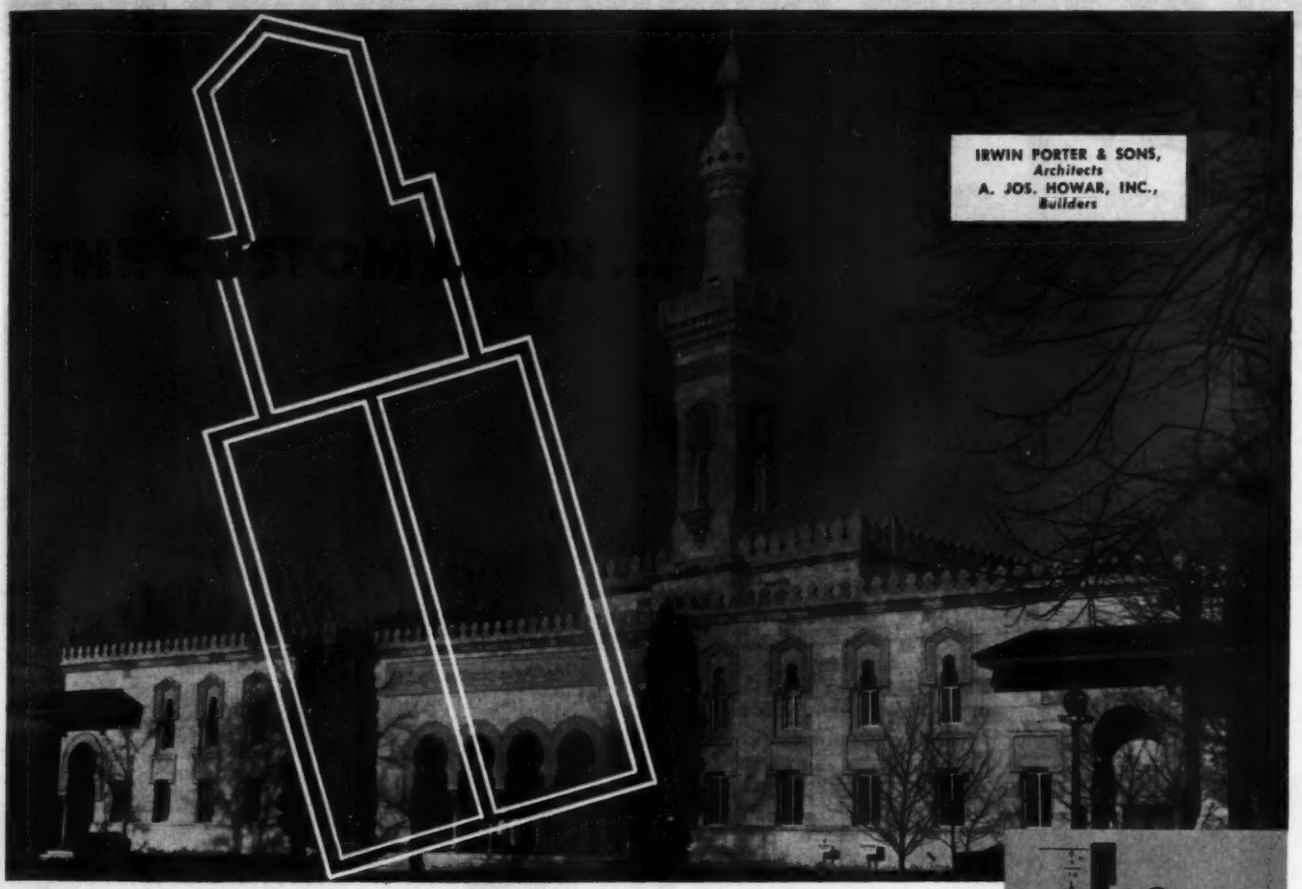
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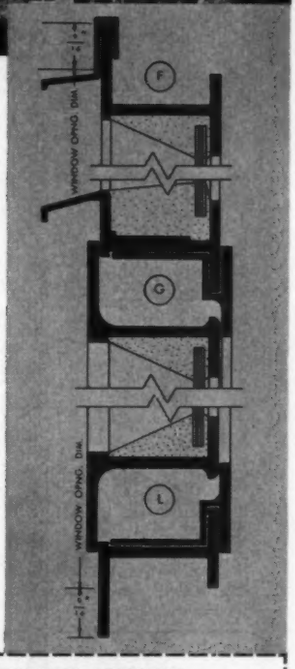
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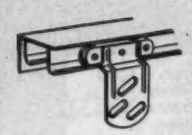
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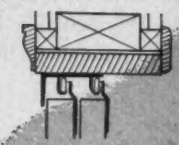
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ADDRESS.....

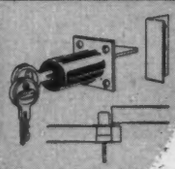
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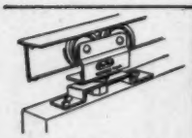
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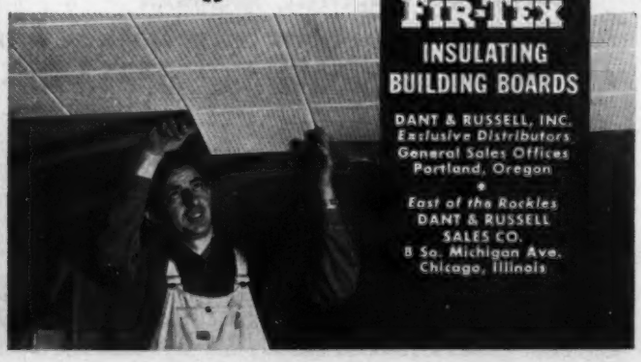
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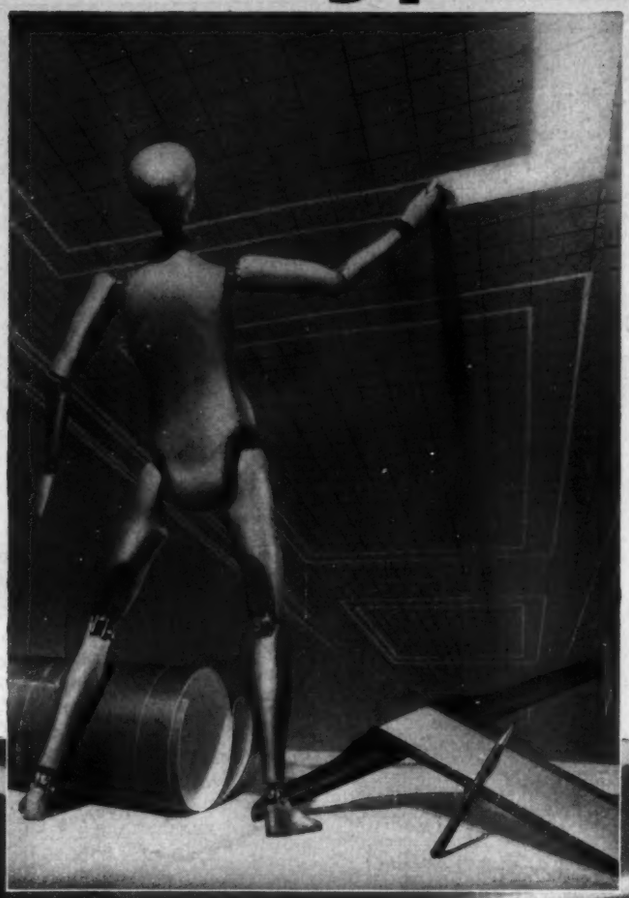
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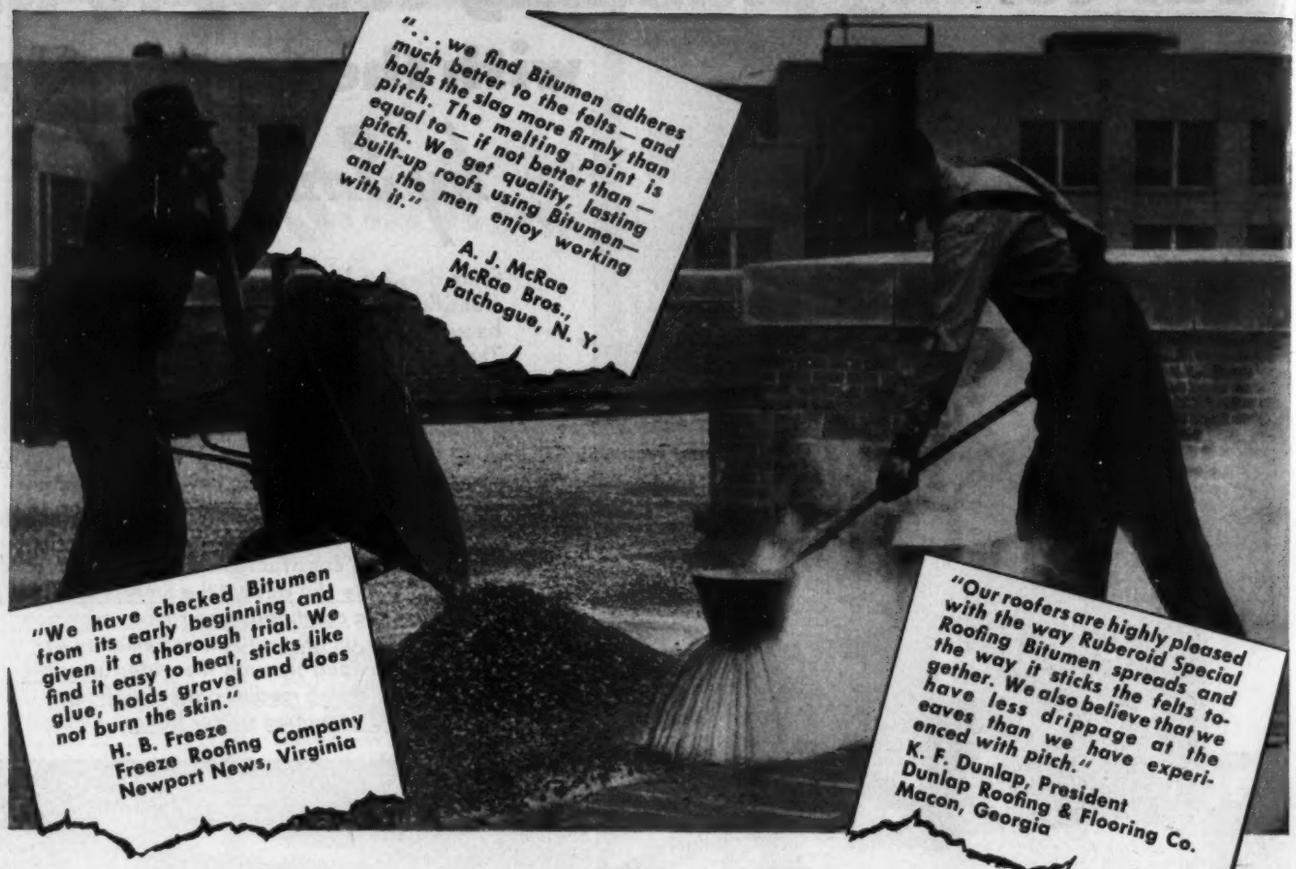
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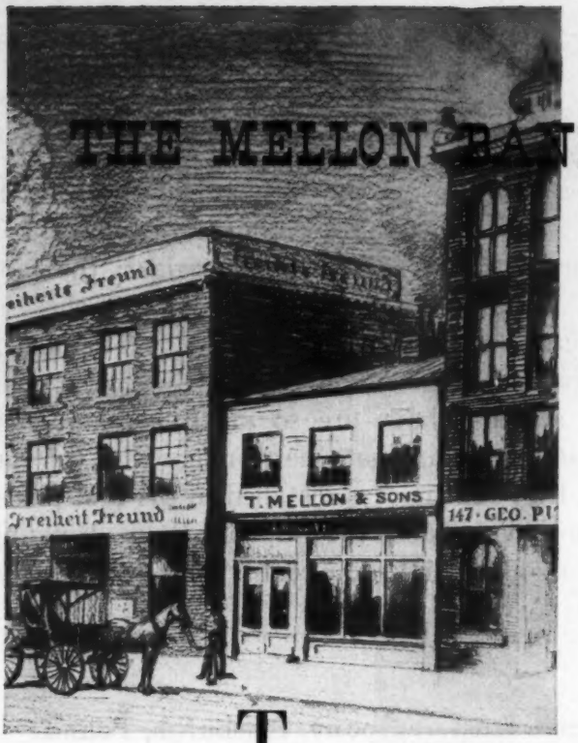
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THE MELLON BANK, OLD AND NEW

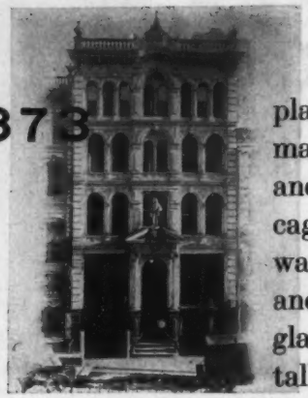


A great tradition expressed in architectural terms unites the neo-classic of the twenties and contemporary forms

THE MELLON NATIONAL BANK AND TRUST is an American institution. Its 86-year history is closely tied to the country's economic and industrial growth; the bank's rise parallels the increasing importance of the city of Pittsburgh after the Civil War. Since 1952 the Mellon Bank has owned and occupied the lower floors of 525 William Penn Place, popularly known as the U. S. Steel-Mellon Building, as modern an architectural concept as building codes and technology permit. At the same time, the bank continues to occupy its conservatively modernized former building, a Pittsburgh landmark, impressively symbolic. The problems of joint ownership of the new building were great (525 William Penn Place Corp. actually owns the portion leased by U. S. Steel) but that is another story. The architectural difficulties of indissolubly joining the 1924 Mellon Bank and the 1952 U. S. Steel Building, while preserving the identity of each, were manifold. Underlying was the necessity for conservation, not merely conservatism but rather a conscious effort to capitalize on the traditional spirit, making it permeate the new and revivifying it in the old.

■

This architectural expression of the institution's continuity takes different forms within the two joined structures. In some of the new a human quality, reflecting today's increasing concern with humanity, is evident in the warm wood used where once marble would have been



placed — marble as the ultimate and only really elegant material. But the main banking room's character is retained and even improved over the original: the fancy tellers' cages, reminiscent of the days before the classical building was erected, have been eliminated. The marble facings and counter tops, simplified, remain; the unpolished plate glass screens above are so much in character with the tall, stately room that one wonders why the fussy bronze work they replace was installed in the first place.

We have called the Mellon Bank Building and its sixty-five-foot-high main room "old." It is so only compara-

Mellon National Bank and Trust Company, Pittsburgh, Penna.

W. K. Harrison, M. Abramovitz, W. Y. Cocken, Associate Architects

Moran, Proctor, Freeman & Meuser, Foundation Engineers

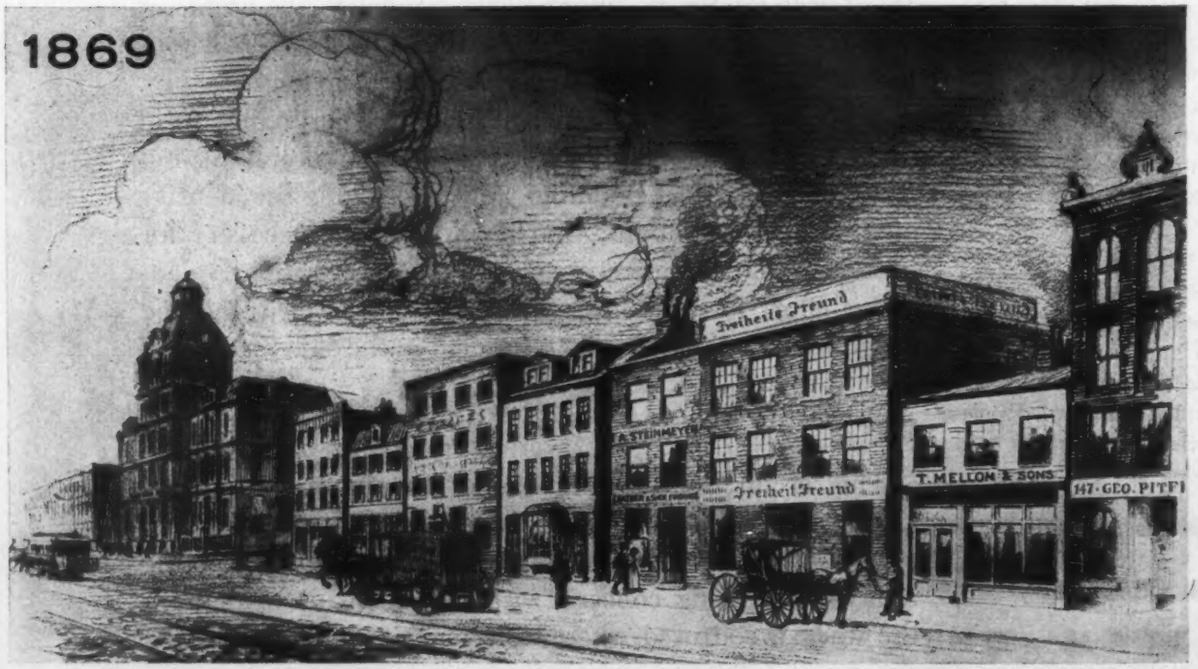
Edwards & Hjorth, Structural Engineers

Meyer, Strong & Jones, Mechanical & Electrical Engineers

Ann Hatfield Associates, Interior Designers

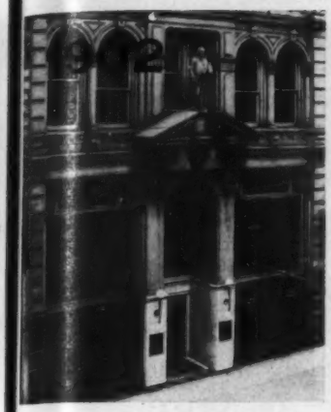
Rudolf Wendel, Lighting Consultant

Turner Construction Co., General Contractors

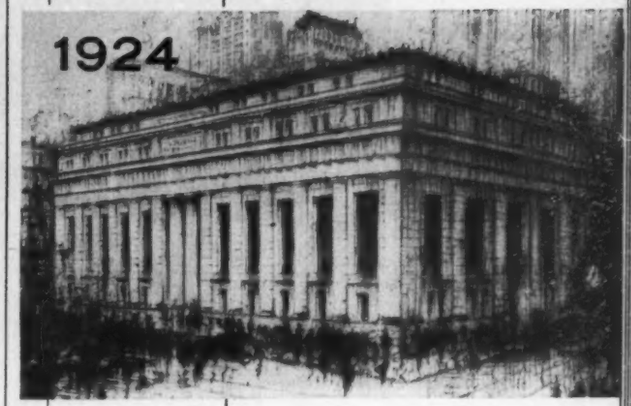


All photos printed in color: Trinity Court Studio

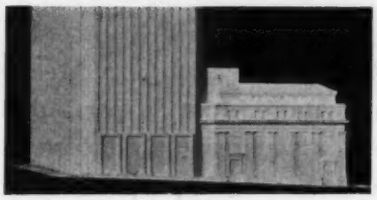
MELLON BANK

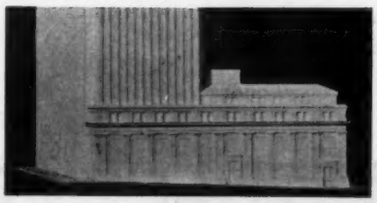












1869: the small, private bank of T. Mellon & Sons. 1873: new, cast-iron-fronted quarters. 1902: T. Mellon & Sons becomes the Mellon National Bank; the entrance was modernized. Late 1800's through 1918: adjoining buildings acquired and remodeled one by one. 1924: the neo-classic landmark. 1946: Mellon National Bank becomes the Mellon National Bank and Trust Co. Since 1952 the bank has again expanded into lower floors of 525 William Penn Pl. Models above are two of many studies of the joining of the two buildings



John D. Schiff, Courtesy Wendel Artistic Lighting Corp.



y. Today's quarters are the fourth phase of architectural growth since 1869. The "old" building, dedicated in 1924, designed by Trowbridge and Livingston with E. P. Mellon associated, was preceded by an impressive assemblage of smaller buildings, covering half a city block bounded by Smithfield St., Fifth Ave. and Oliver Ave. This had grown by accretion and individual modernization in the ornamented cast iron and mahogany fashion that was then the architectural façade of successful American business, redolent of cigars and fully outfitted with cuspidors. The period of this expansion lasted until 1918; it had started when the bank's second home, a cast iron front building at 514 Smithfield St., was put up in 1873. The first home was even more humble; the bank was opened in a two-story frame structure on the other side of Smithfield in 1869.

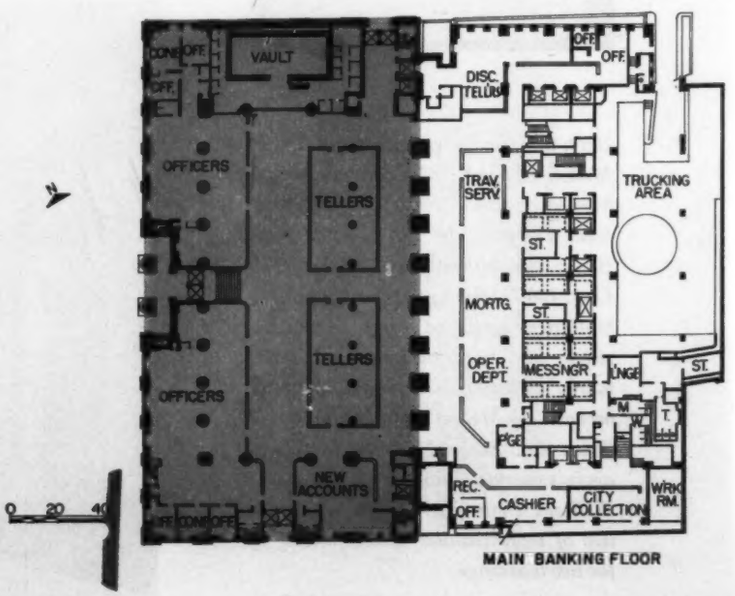


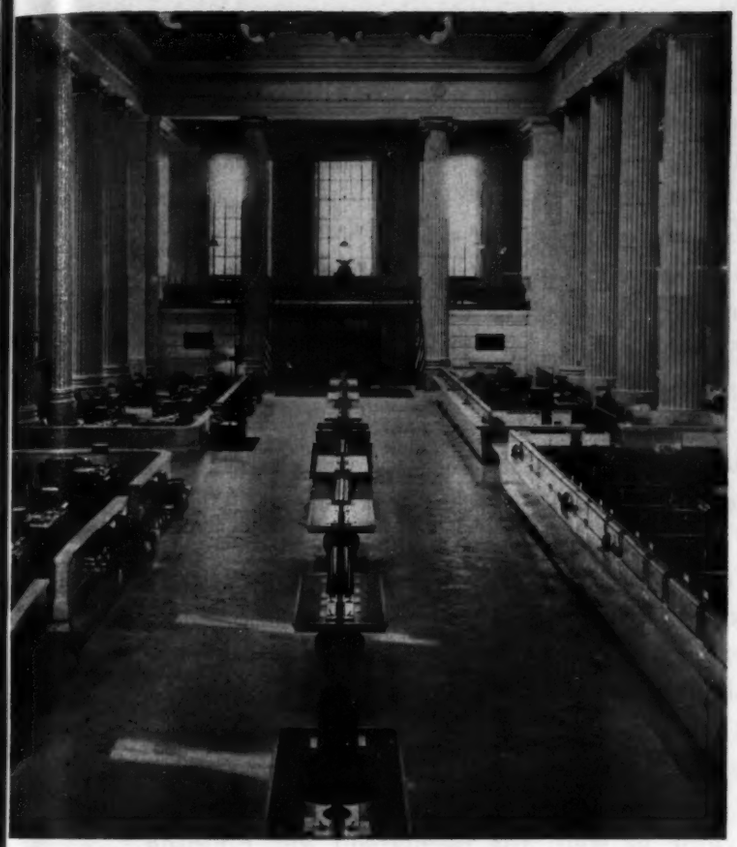
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There in reverse chronology is the bare architectural history. Implicit in it is much more. Just as parts of the newest quarters make evident an increasing concern with people, so the modest frame bank was appropriate for in-

Two illustrations above contrast tellers' cages in two architectural eras: during the age of Victorian expansion and in the neo-classic 1920's. Below, also from Victorian days: modernization did not impair the whimsical variety of design of the cast iron columns and capitals in adjacent buildings



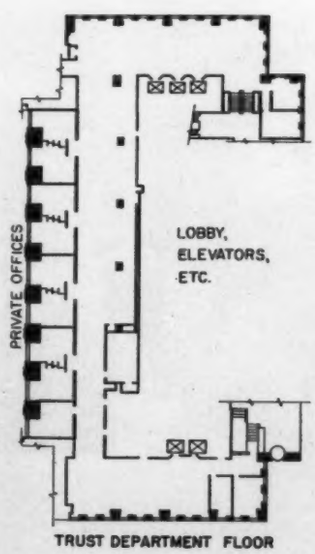




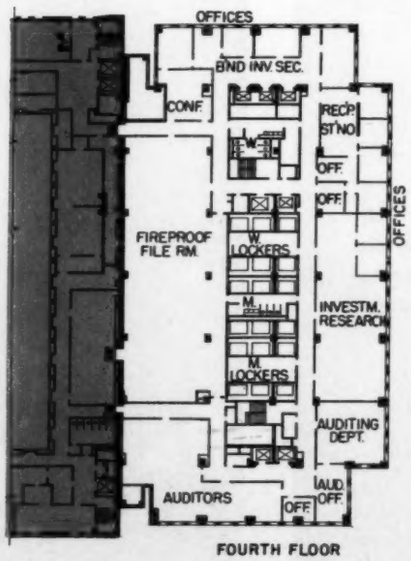


Lawrence S. Williams

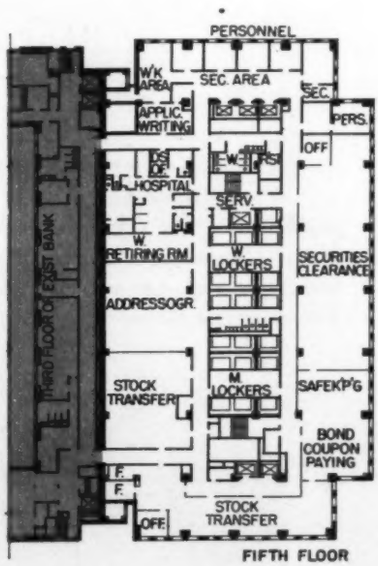
Main banking room in the 1924 building has been cleaned up; marble railing around the officers' space remains, but tellers are grouped in two islands surrounded by new counters executed in marble matched to the old, with screens of bent, unpolished plate glass. At right, the totally new Trust Department in the new building; vice presidents' offices along right wall



TRUST DEPARTMENT FLOOR



FOURTH FLOOR



FIFTH FLOOR



conspicuous beginnings at a time when steel, glass, coal, coke, oil and all types of industry were in need of banking facilities. It was never accidental that industrial growth and the bank's prosperity coincided. A continuing policy which combined careful conservation of resources and apparent daring in encouraging new industry made the coincidence inevitable.

There is a parallel, too, between the bank's history and the city's. Pittsburgh's industrial growth since the Civil War is familiar; its sooty smog made newspaper headlines; so did the municipal decision — in which the Mellon family played an important part — to clean up and redevelop. It is not accidental, either, that the low mass of the 1924 structure is juxtaposed to the tall U. S. Steel one: one towers, the other sits lower beside it, a situation highly desirable in a downtown area which, even with a plaza in front of the bank and the recently opened-up triangle at the junction of the rivers not far away, is still one of narrow streets and skyscrapers. The juxtaposition has financial value as well; the permanent low building permanently protects the tower floors, insuring their light, air, and occupancy.

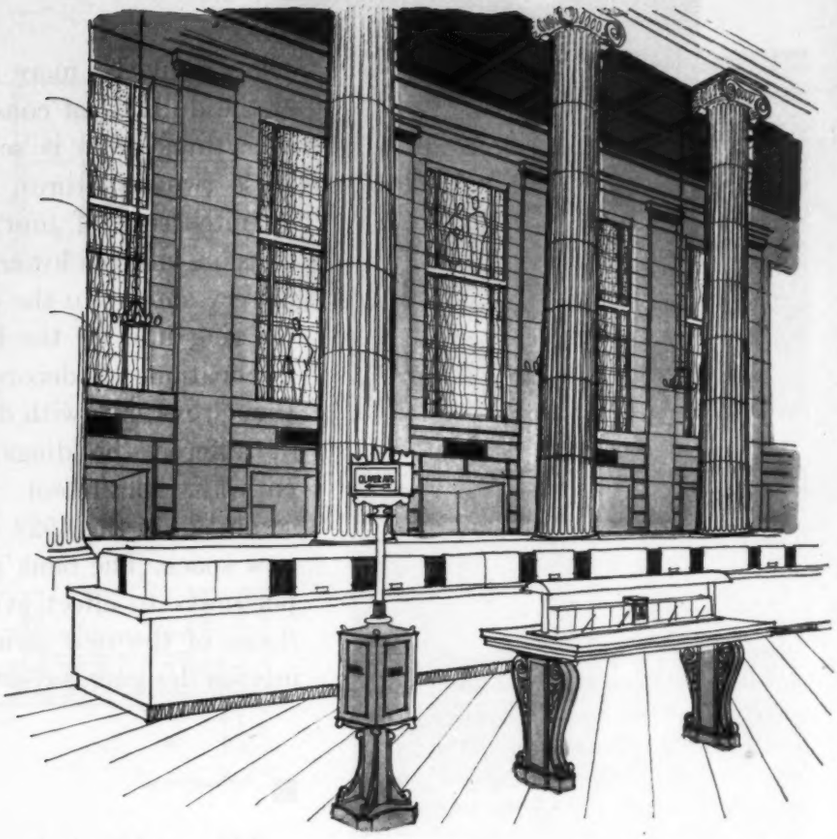


We are accustomed to seeing buildings of different eras side by side on our streets. Whether or not uniform fa-



During the Victorian period of expansion the varying heights of the acquired buildings were arbitrarily unified; some had stories lopped off, others had their façades raised. The sign, MELLON NATIONAL BANK, bestrode their continuous cornice. In one building (top of page) was the Pittsburgh Clearing House. At right, the handsome old Fifth Ave. corridor





Drawing by Paul Wolfe

For a while the wall between the 1924 main banking room and the new building, filled with structural members and utilities, was a problem. Eventually, without interrupting bank business, the job of piercing it began. Thanks to the multistory penetrations, departments in the new buildings' lower floors now operate under the continuing influence of a very strong tradition

Lawrence S. Williams







udes would be more satisfying esthetically (and, thinking the dullness of conscious virtue, one wonders) to build erything alike is seldom possible economically. Inside ese two structures, unlike though they are, there is a finite sense of unity architecturally achieved. The expansion into the lower stories of a new, different building very similar to the earlier expansion from the cast iron building into all the buildings around it; at that time a duplication of decoration, furnishings and equipment, though perhaps with different capitals on the iron columns in different buildings, contributed to the unity of the entire establishment. Now, there is some new furniture, some old, in the 1924 building, some new, some old in the new space. The bank's traditions have been given the opportunity to affect even the operations carried on in the floors of the new structures. Ann Hatfield, who was the interior designer, says:

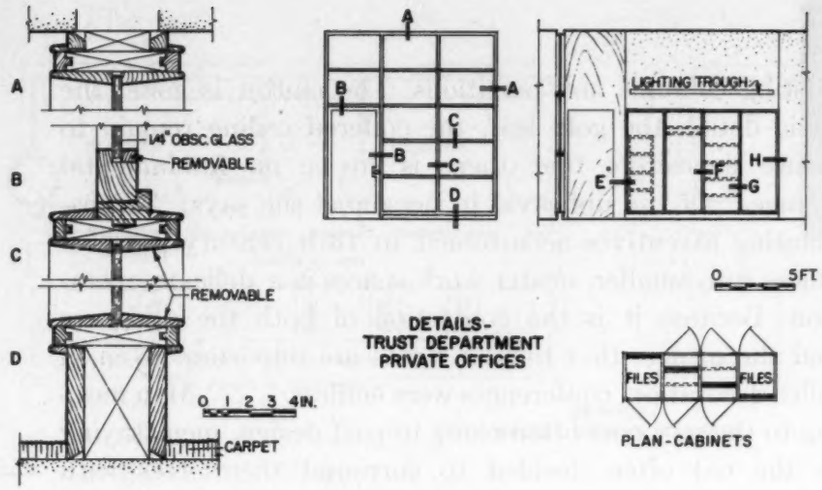
Above, Victorian office of Walter S. Mitchell, who started as the bank's first messenger and later became a director, serving as Vice President from 1916 until his death in 1930. Below, officers' quarters prior to 1924 and, right, after the neo-classic building was opened

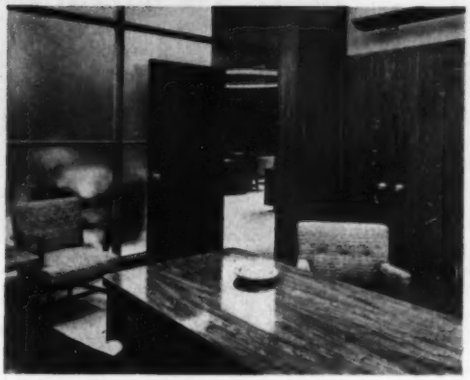
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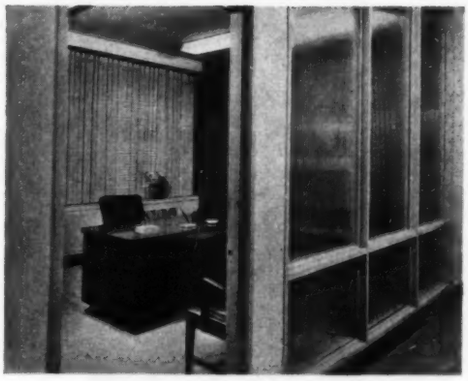
"The architects have pierced the old banking floor wall with 23-foot windows which open into the new Trust Department and recall original windows on the other three walls of the old bank. While the bronze cages have been swept away, the new islands are in marble matched to the



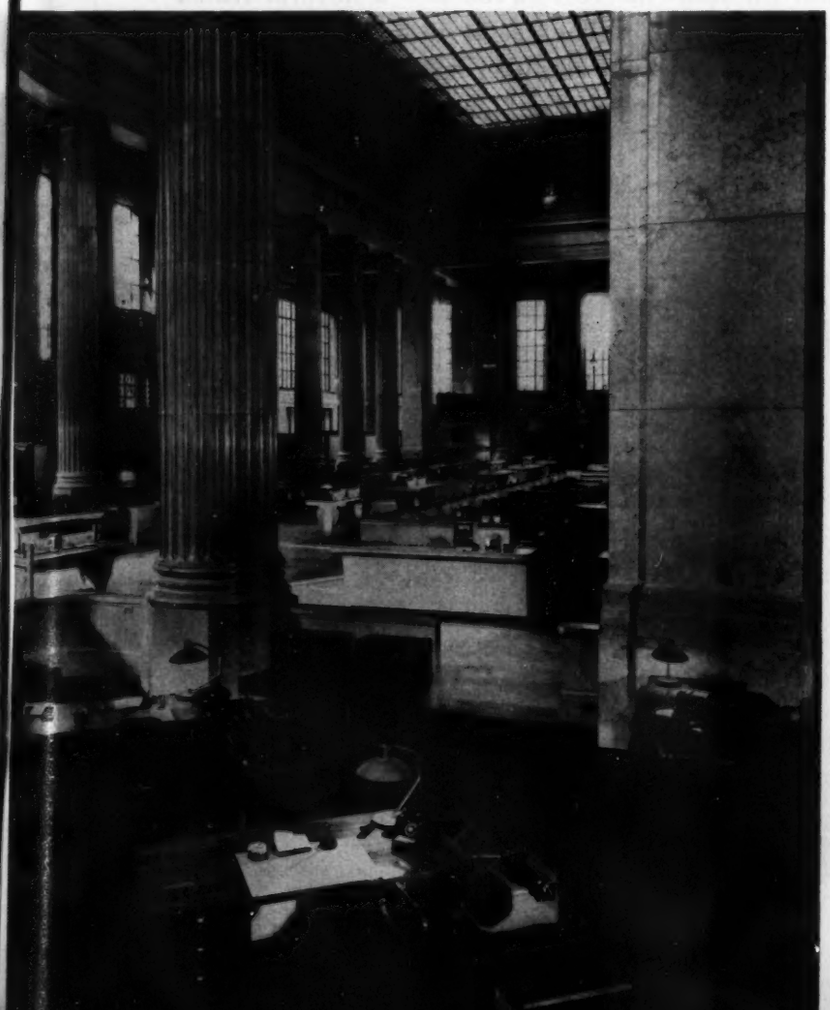












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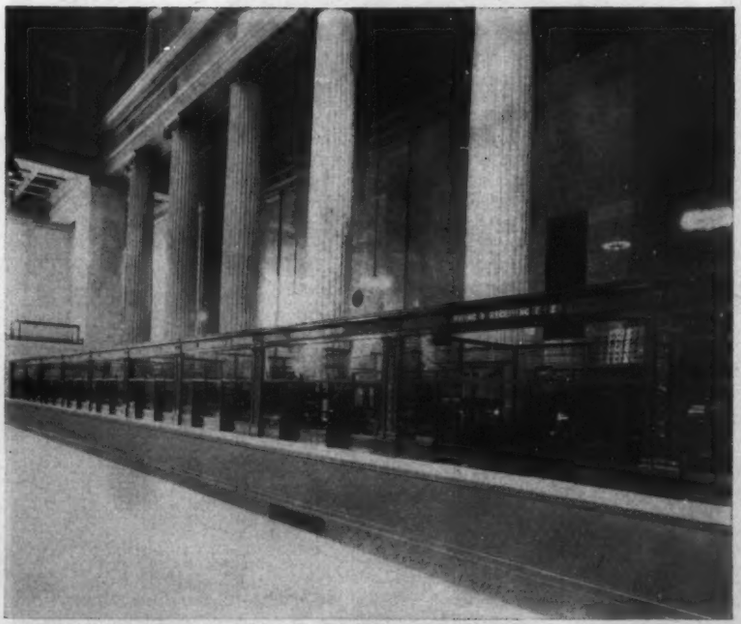
Left, present officers' quarters in the modernized 1924 building: contemporary furniture and appointments beneath a coffered ceiling adapted from the antique. Immediately above, modified traditional decor illuminated in ultra-modern fashion. Top of page, details of private offices in the Trust Department, in the new building



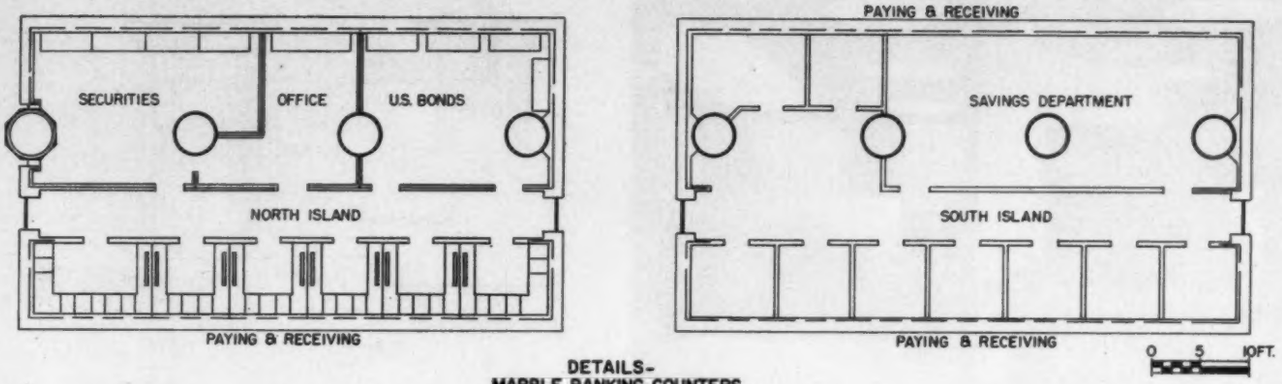


...sting columns and partitions. The clutter is gone; the ...ic detail, the gold leaf, the coffered ceiling remain to as...ure depositors that there is to be no fundamental ch...nge." Of the upheaval in personnel she says: "Transplanting executives accustomed to 18th century panelled offices into smaller, neater work spaces is a delicate operation. Because it is the conviction of both the designers and the owners that human rights are important even in office decoration, conferences were endless. . . . Men moving to the new part often clung to past design, men staying in the old often decided to surround themselves with simple vertical panelling and ceiling-to-floor drapery at windows designed for roller shades. . . . Even in small public spaces, conference rooms where old customers may sit to read wills, there are relics of the old: cast aluminum chairs, circa 1903, reduced in embonpoint and reupholstered, their former walnut graining obliterated by dull black so they will look completely at home around a simple, specially designed table. . . . By using the best of the old and the most discreet of the new a natural transition was achieved. . . . The result is a bank that feels lived in, and not merely a vault for converting monies."

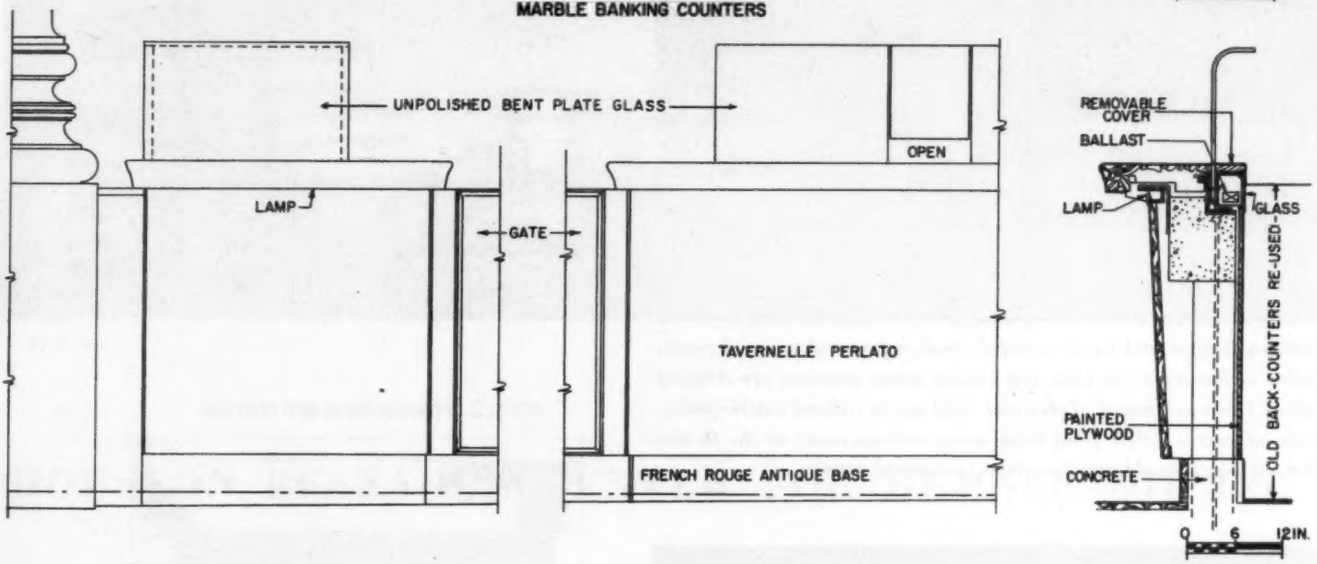
—Frank G. Lopez



Top of page, clerical desks in bookkeeping department; center, accounting room; both in the assemblage of buildings that served the bank until the 1920's. Below, bronze tellers' cages and marble counters in the main banking room were replaced with the simply detailed, better proportioned marble and unpolished glass screens shown on facing page. The new enhances the room's classic proportions; the old obscured them. Photo at far right, facing page: loan department in new building



DETAILS-
MARBLE BANKING COUNTERS



Lawrence S. Williams

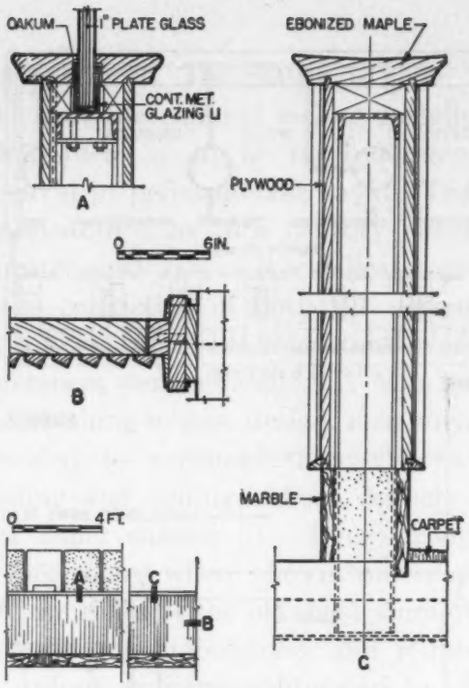


John D. Schiff, Courtesy Wendel Artistic Lighting Corp.



MELLON BANK

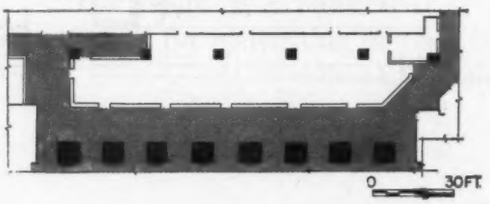


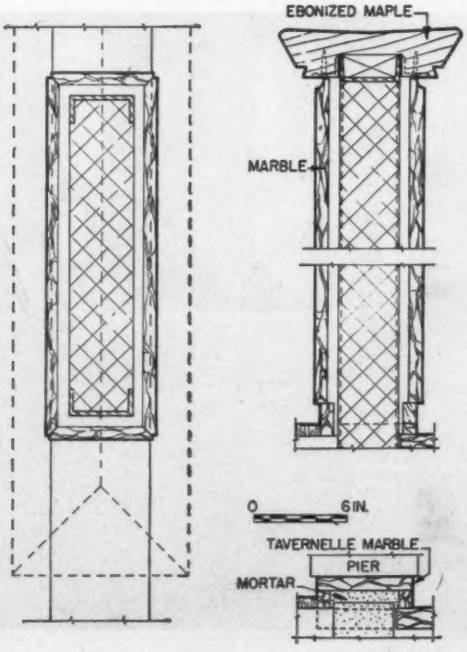


DETAILS- WOOD-PANELLED BANKING COUNTER

Use of marble, as in the old building, is repeated in the new, in floors, column facings and bases; natural wood, softer and more pleasant, helps to humanize the loan department whose counters are detailed above. Open rail below, of ebonized wood set on isolated marble pedestals, separates public from bank areas without resort to the formal barrier which would once have been considered proper

DETAILS-OPEN RAILING IN NEW PORTION







Lawrence S. Williams



F. W. Selders

HOUSTON RESEARCH CENTER FOR HUMBLE OIL CO.

Mac Kie and Kamrath, Architects

Walter P. Moore, Structural Engineer

Howard and Johnson, Mechanical Engineers

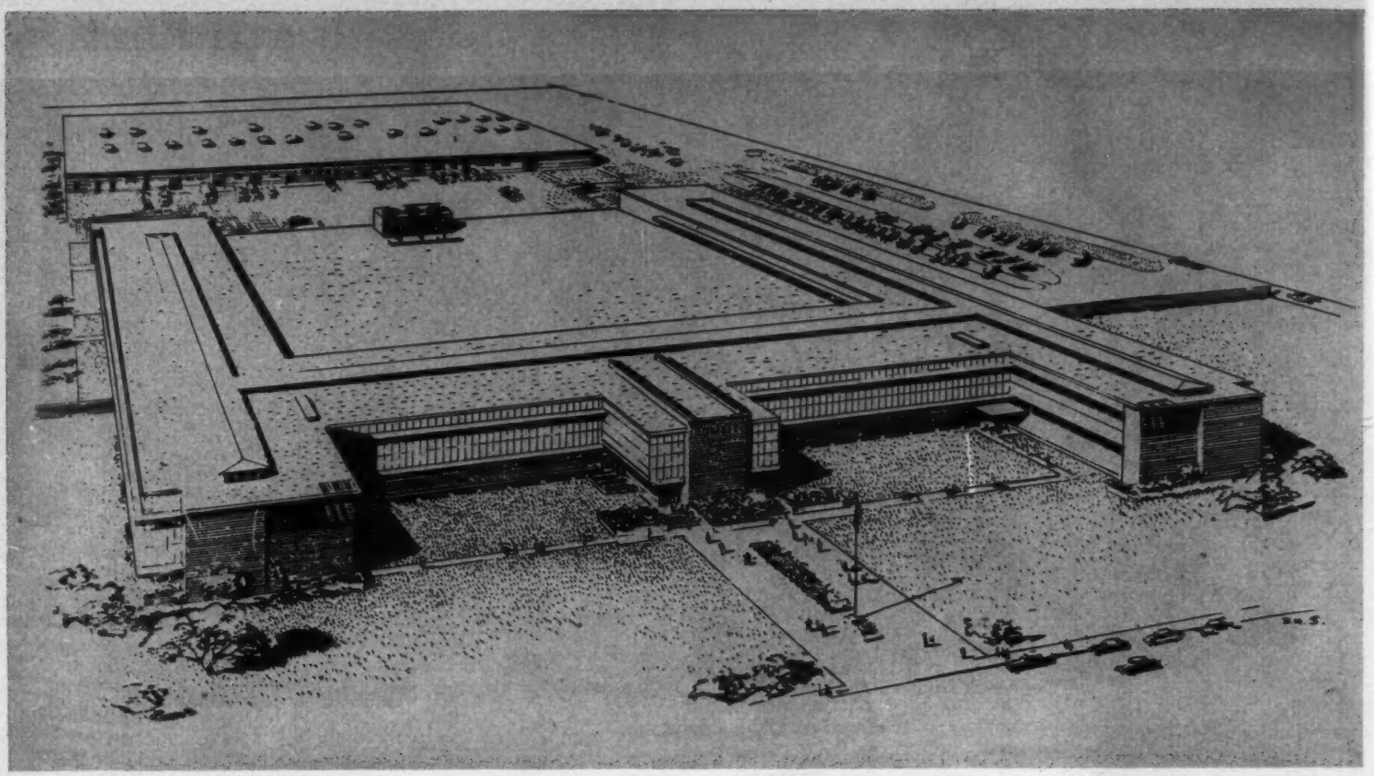
Linbeck Construction Corp., General Contractors

BEFORE THIS CENTER was built, Humble Oil's research into exploration and production had been carried on by various teams and individuals in scattered and sometimes makeshift quarters. Now, for the first time, these groups have been brought together into an environment calculated both to increase their efficiency and to provide as much amenity as possible. The architectural problem was to organize a set of highly diverse yet closely related activities within such surroundings.

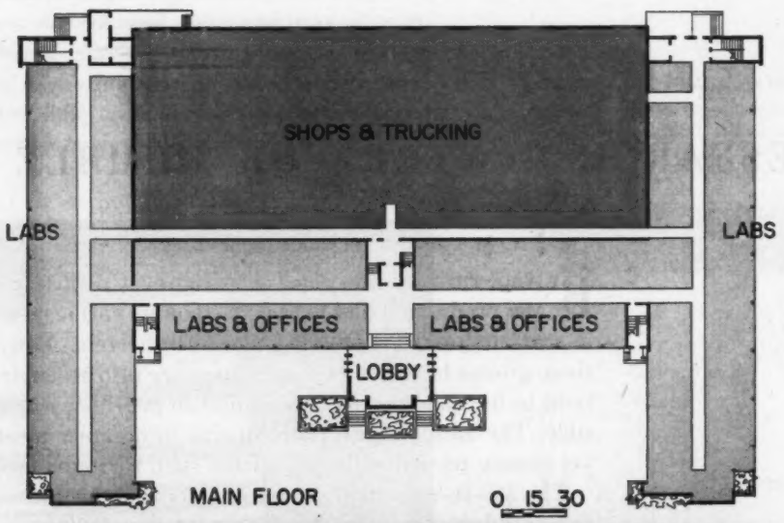
The 350-ft-long main structure is located on a 15-acre site facing east to a speedway; contains 300 rooms totaling 112,000 sq ft on three levels; cost approximately $2,830,000. The structure is designed for a possible future third floor. Principal entrance is through a lobby slightly above grade, which is the intermediate of the three floors. There is ample parking for both employes and public.

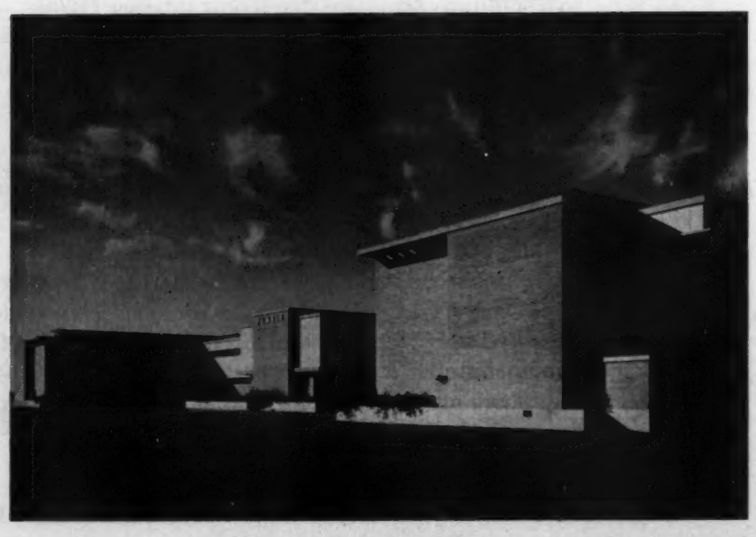
A separate service building to the rear of the main structure furnishes a total of 30,000 sq ft devoted to field storage, general storage, receiving and stock rooms, certain shops and labs, and the cafeteria. There are exterior areas for testing and truck storage.

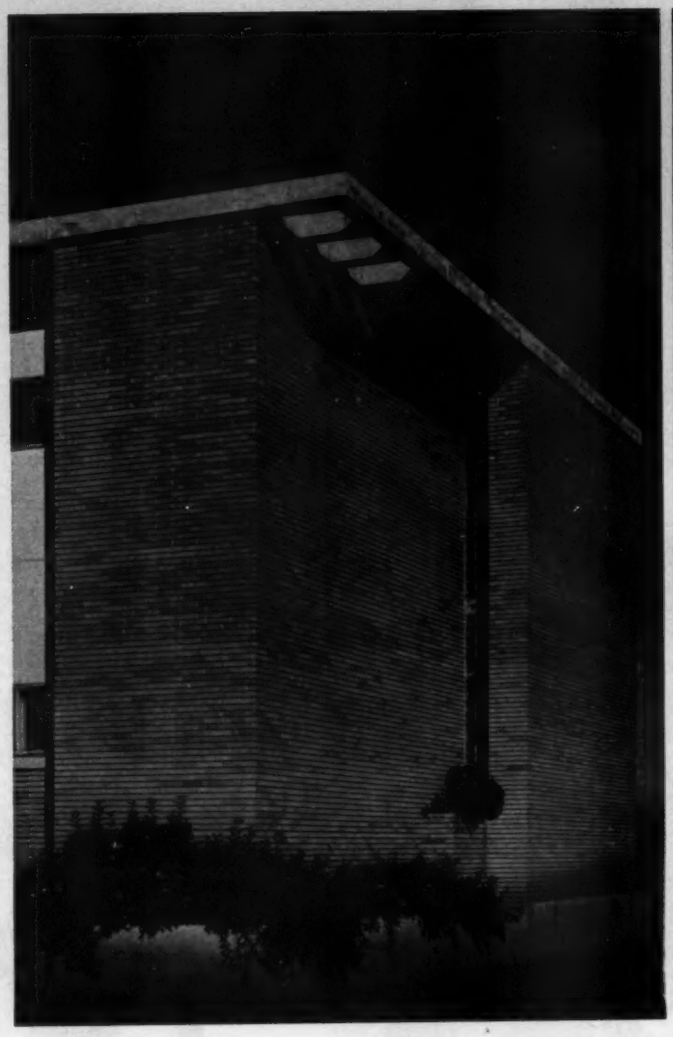
The main building is framed in steel and reinforced concrete and is faced with brick and cream colored stone. The windows are aluminum, glazed with ¼-in polished plate; exterior doors and frames are also aluminum. Interior walls and partitions are painted plaster over structural tile; floors are finished with oxychloride cement or rubber tile; ceilings are finished with metal acoustical panels.



Perspective, top, shows service building behind main structure, Diagrammatic H-plan, below, shows principal functional groups









F. W. Selders

The two closeups above reveal the manner in which brick, stone, glass, and aluminum have been carefully juxtaposed for textural and color interest. Below, main lobby looking toward entrance







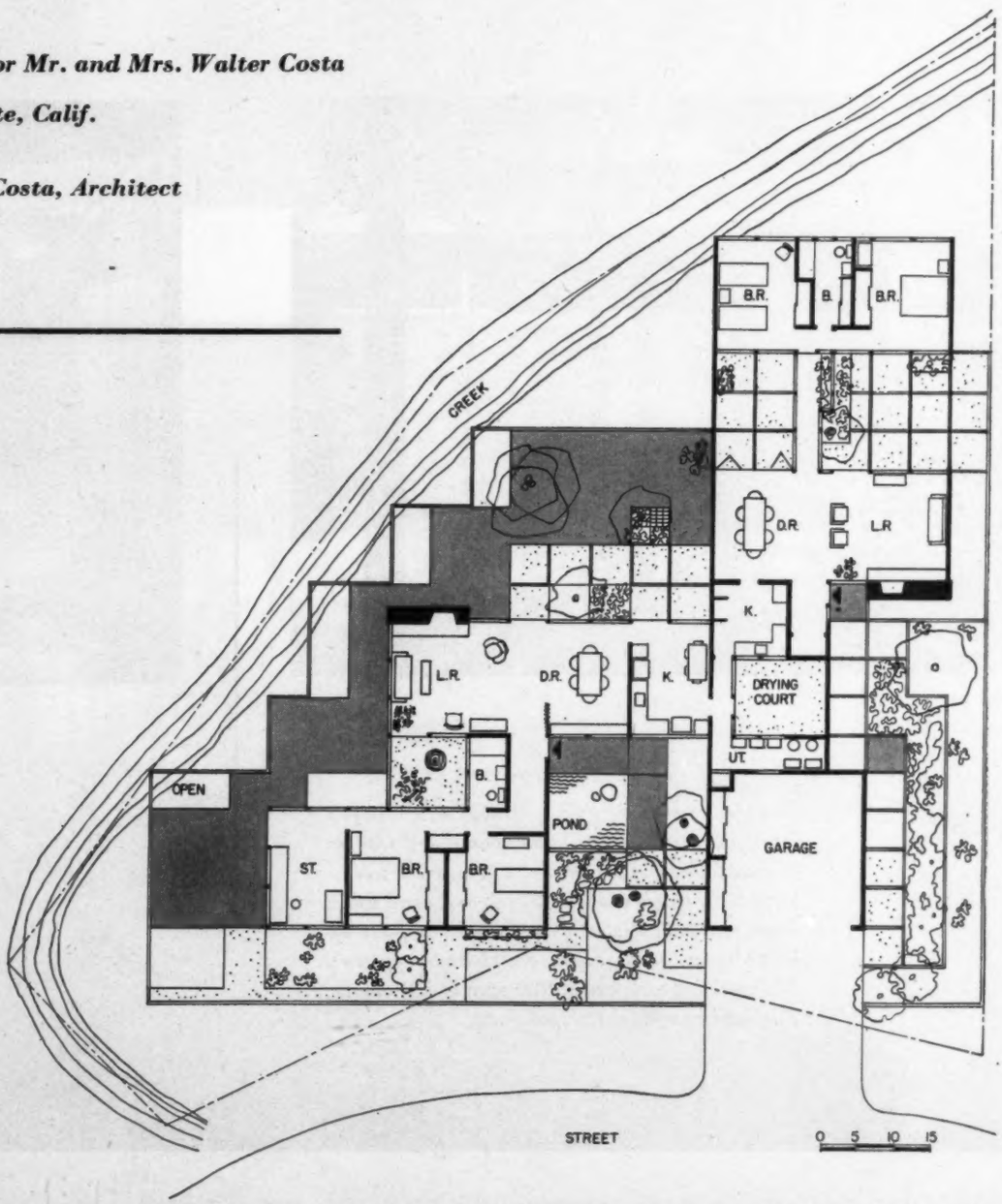
Morley Baer

TWO-FAMILY HOUSE WITH A DIFFERENCE—PRIVACY

House for Mr. and Mrs. Walter Costa

Lafayette, Calif.

Walter Costa, Architect

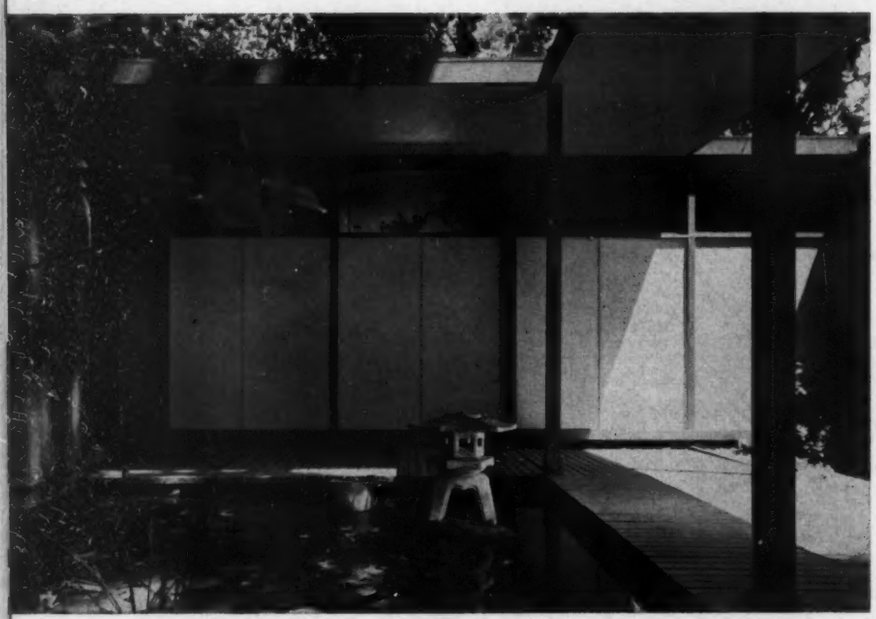


THE REASON HE BUILT A DUPLEX, Architect Walter Costa explains, is that the kind of house he and his wife wanted would not have been economically feasible without the income-producing rental unit.

The site they selected, not far outside San Francisco, was ideal for the purpose — handy to shopping, schools and transportation, almost wholly level, and triangular in shape with a brook running along the long leg. A dozen or more fine old oak trees, one of which the house literally was built around, and the location of the brook "presented the greatest challenge," the architect says "and were the primary influence on the building design."

As the plot plan on the preceding page shows, the triangularity of the lot was used to separate the two units as much as possible. Each of the two has two bedrooms, one bath, living-dining space and kitchen, and the owners' also has a combination studio and sewing room. Laundry, utility room and garage are common to the two units. A long, roof-height redwood wall with only one opening (a door from the owners' kitchen to the utility room) separates the two and gives each an unusual amount of privacy.

The basis of the design, the architect says, was "to employ an inexpensive structural system and inexpensive materials, but to use them to their best advantage and use the funds available to acquire as much space as possible, arranged as interestingly as possible." Since the site was virtually flat, a concrete slab floor with colored cement finish was used except in the bedroom wing of the rental unit which has a wood floor, cantilevered over the creek. A 5 ft 4 in. modular grid was used with post and lintel framing and joist roof construction. Interior walls and ceilings are finished in ¼-in. hardboard with ¼-in. open joints between sheets; this made an inexpensive surface for painting, and the open joints created a paneled appearance which will not show cracked joints when settlement occurs. Exterior finish is glass, 1 by 6 redwood T&G applied vertically, or ½-in. waterproof plywood.





Entrance to owners' unit is through a landscaped court, along a covered walk and past a pool with an oriental lantern in one corner. The huge oak tree — 40 ft high, trunk diameter 3½ ft — around which house was built has its own glass-walled patio off living room (above right, and bottom opposite). Living-dining room and kitchen open to deck at rear, shielded by roof-high redwood fence





Morley Baer

COSTA HOUSE—OWNERS' UNIT



Dining area walls are less than ceiling height, increasing sense of spaciousness and improving both light and ventilation. Main entrance bypasses this area, leads almost directly to living room; rear terrace is visible from just inside door. In order to use part of lot sloping down to creek bed, an extensive deck, level with house floor and supported by concrete columns (visible in photo at bottom of page) was built. Continuation of this deck around end of living room creates secluded sunbathing areas outside bedroom and study. Japanese lanterns, prints and sculpture were acquired by owner during stay in Japan

Morley Baer





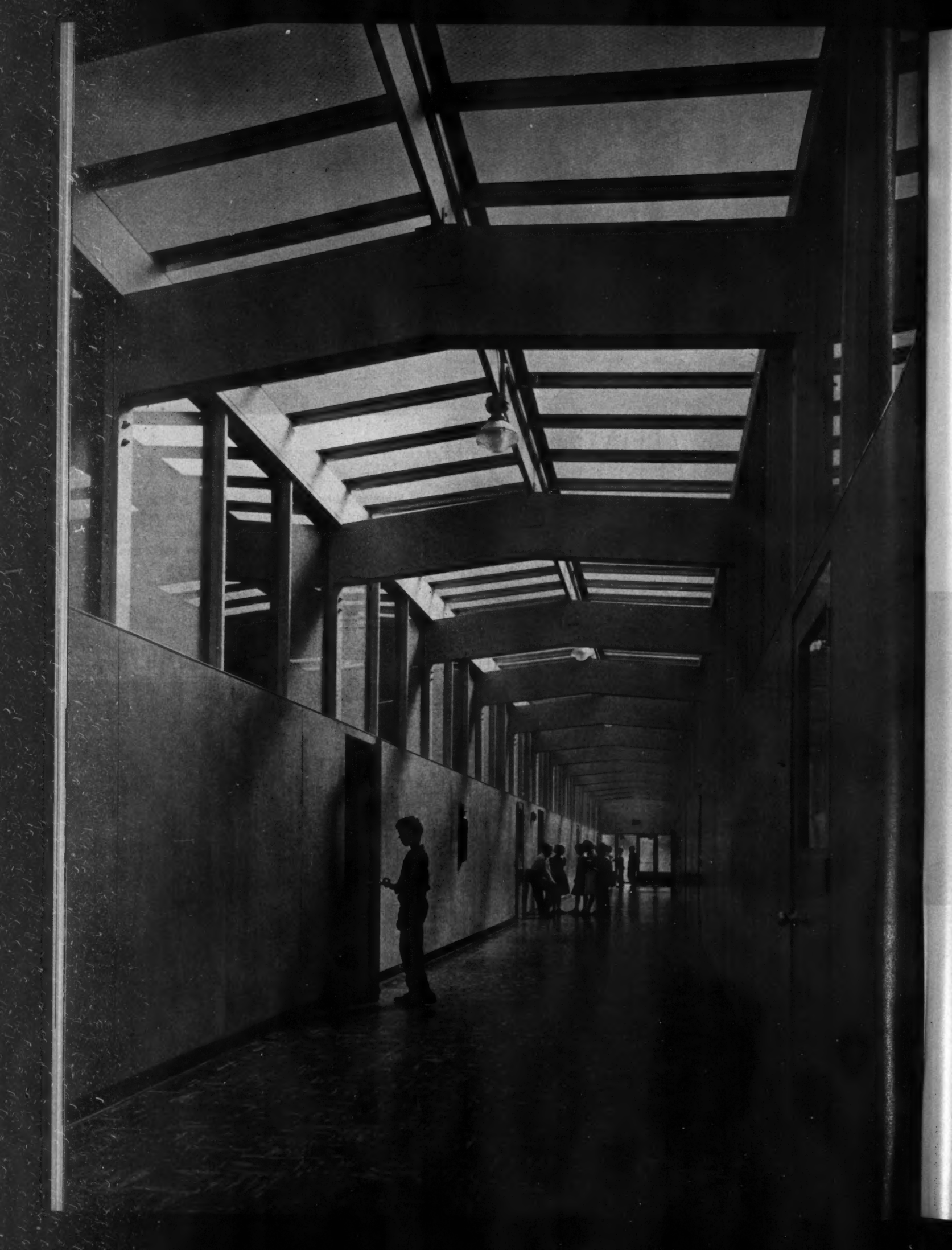


RENTAL UNIT



Rental unit has every bit as much privacy as owners' part of house. Entrance (left) is on opposite side of garage, with similar approach from street via court and covered walk. Unit has two inner courts, one off dining area (above) which is currently used as a child's play space and one off living room. Bedrooms (not shown) overlook the creek at rear of property

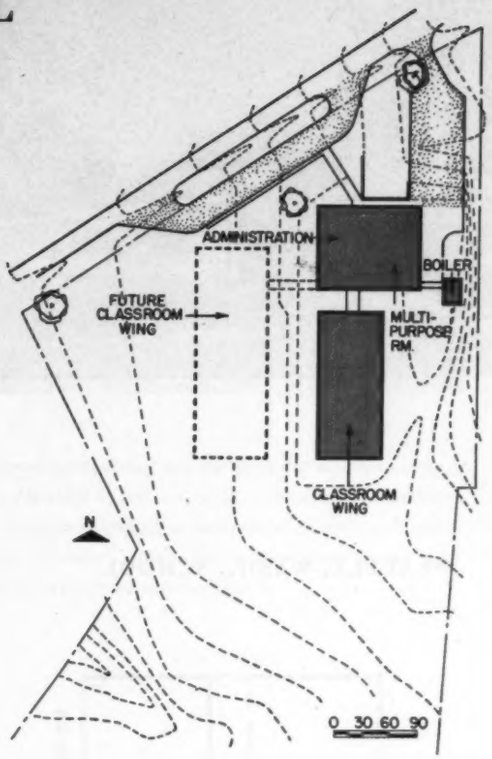




SKYLIGHTED WASHINGTON SCHOOL

NORMANDY PARK ELEMENTARY SCHOOL

Seattle, Washington



THE NORMANDY PARK Elementary School, for grades 1 through 6, has an ultimate capacity of 500 pupils (300 in first stage shown). The Highline School District No. 401, for which it was designed, has low tax evaluation; it is crowded and constantly growing. Accordingly economy and flexibility were essential. The site, in a residential area, was tree covered; buildings were adjusted to the contours in order to keep the original character of the terrain while providing good classroom-playground relationships.

The simple structure is devoid of complications, gadgets or tricks. Laminated wood girders are spaced on a 10 ft 8 in. module throughout the classroom area. Steel beams and columns are used in the gym-auditorium building. There are four units: gym-auditorium, containing also administrative offices, work areas, clinic, teachers' rooms, kitchen and toilet facilities; boiler room and janitor's storage space; two classroom wings, of which one was built at first. In order to avoid cumbersome fire walls, fire doors, flashings, etc., the units are separated yet connected by open passages. There are no vent hoods or chimney penetrating the roof; classroom wing toilets are accessible from out-



Waldron & Dietz, Architects

Engineers: Stevenson & Rubens (Struct.); Richard Stern (Mech.); Beverly Travis (Elec.)



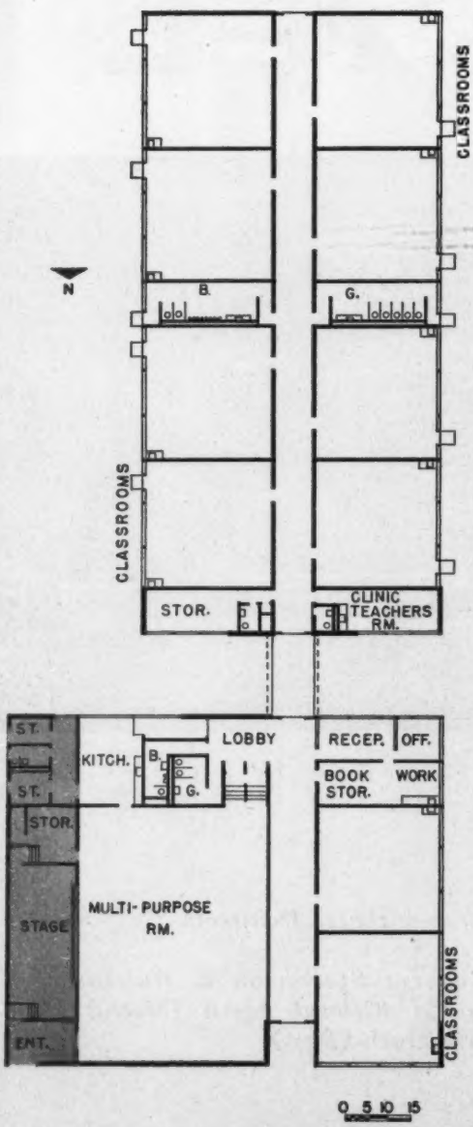
doors; exterior finishes are brick and asbestos-cement board, interior, natural wood, plaster and asbestos-cement board — all measures inducing economy. The skylights are simply designed and built. This care in design paid off, as the cost data show:

CONSTRUCTION COST		AREA: 20,946 sq ft	
General contract	$157,538	General, Cost per sq ft	$7.50
Mechanical	40,402	Mech., Cost per sq ft	1.93
Electrical	15,244	Elec., Cost per sq ft	0.73
Architect's fee	14,791	Fees, Cost per sq ft	0.72
TOTAL	$227,975	TOTAL PER SQ FT	$10.88

Cost per classroom (10 rooms) $22,800

Cost per pupil (300) $760

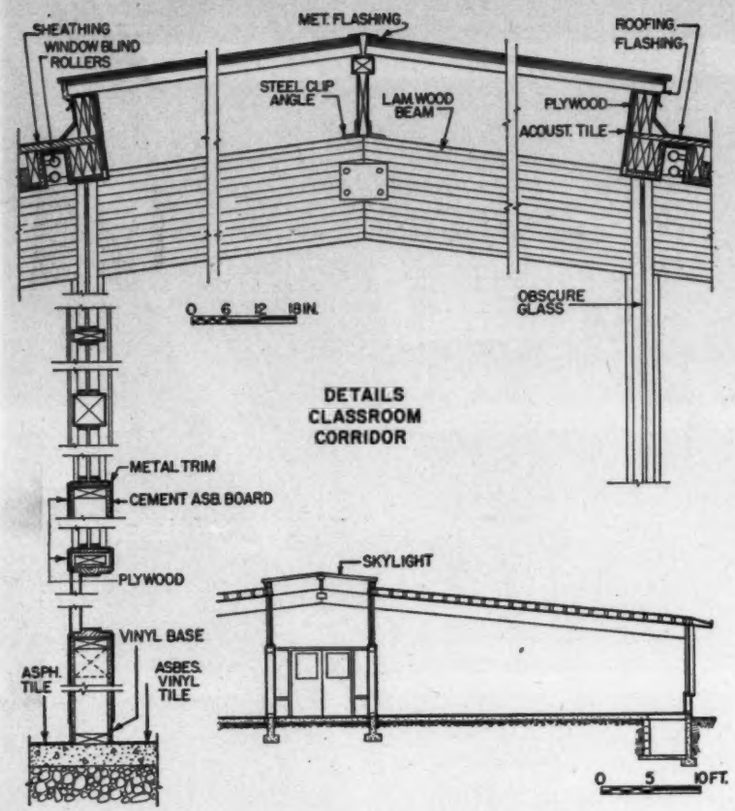
SEATTLE, WASH., SCHOOL







Photos above, left, administrative office; right, corridor beside gymnasium. Before construction of this building the community had no meeting room. Kitchen can serve equally the classroom lunch program now employed, cafeteria service in gymnasium if this is ever required, and adult functions. Shaded area of plan shows potential enlargement of these facilities which community growth may demand





Classroom furnishings are portable for maximum flexibility. Heating is hot water along building's exteriors; air is supplied through a peripheral tunnel, exhausted through corridor; fresh air enters fan rooms over corridors through louvered walls




FISH DEPT.
2
3
10

STORES



E. Wanlom

FOODLAND SUPERMARKET, KAILUA, OAHU, T.H.

THIS SUPERMARKET plan is four-part: an L-shaped service area wraps around two sides of the large sales space; a brick faced liquor shop flanks the corner entrance; two small rental stores form a rear wing on the parking area.

The 90-ft clear span is economically framed with precast arches and abutments; is the largest such structure in the Islands. The precast load-bearing grilles forming the end walls are 3 in. thick and glazed with blue heat-absorbing glass. The roof is laid on 2-in. T&G plank over timber purlins. The 18,100 sq ft structure cost slightly over $9.50 per sq ft.



Wimberly and Cook, Architects

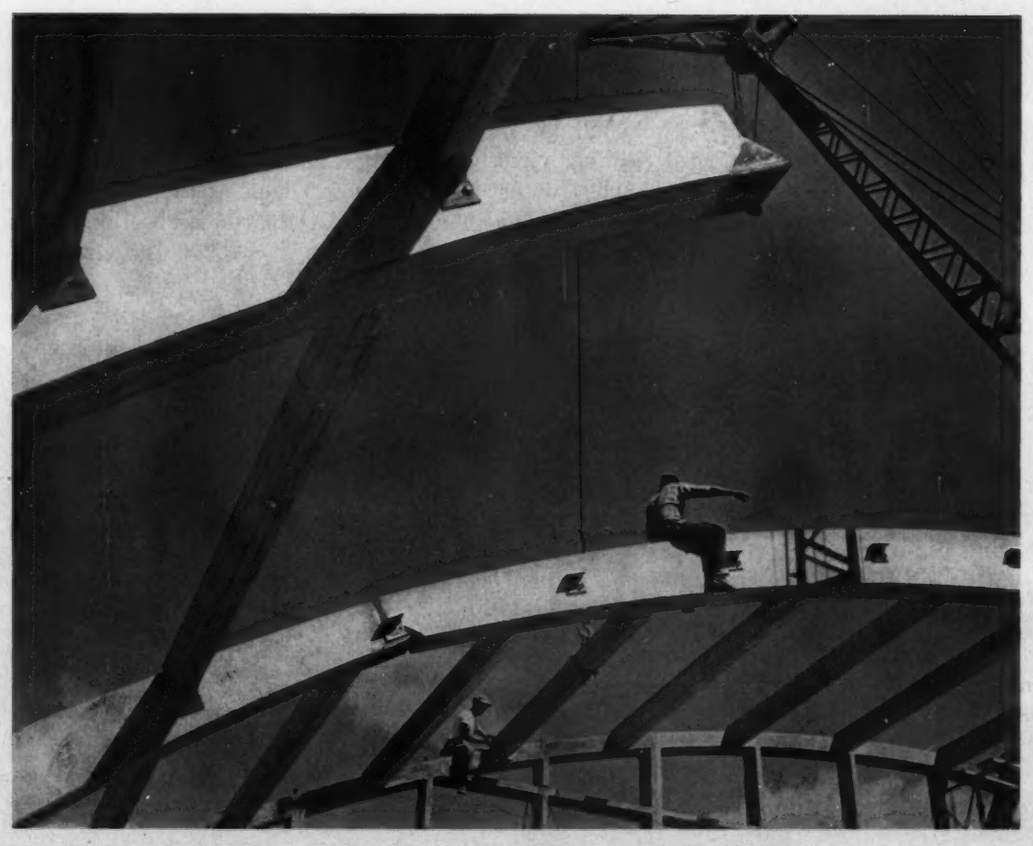
Richard R. Bradshaw, Structural Engineer

Nordic Construction Co., Contractor



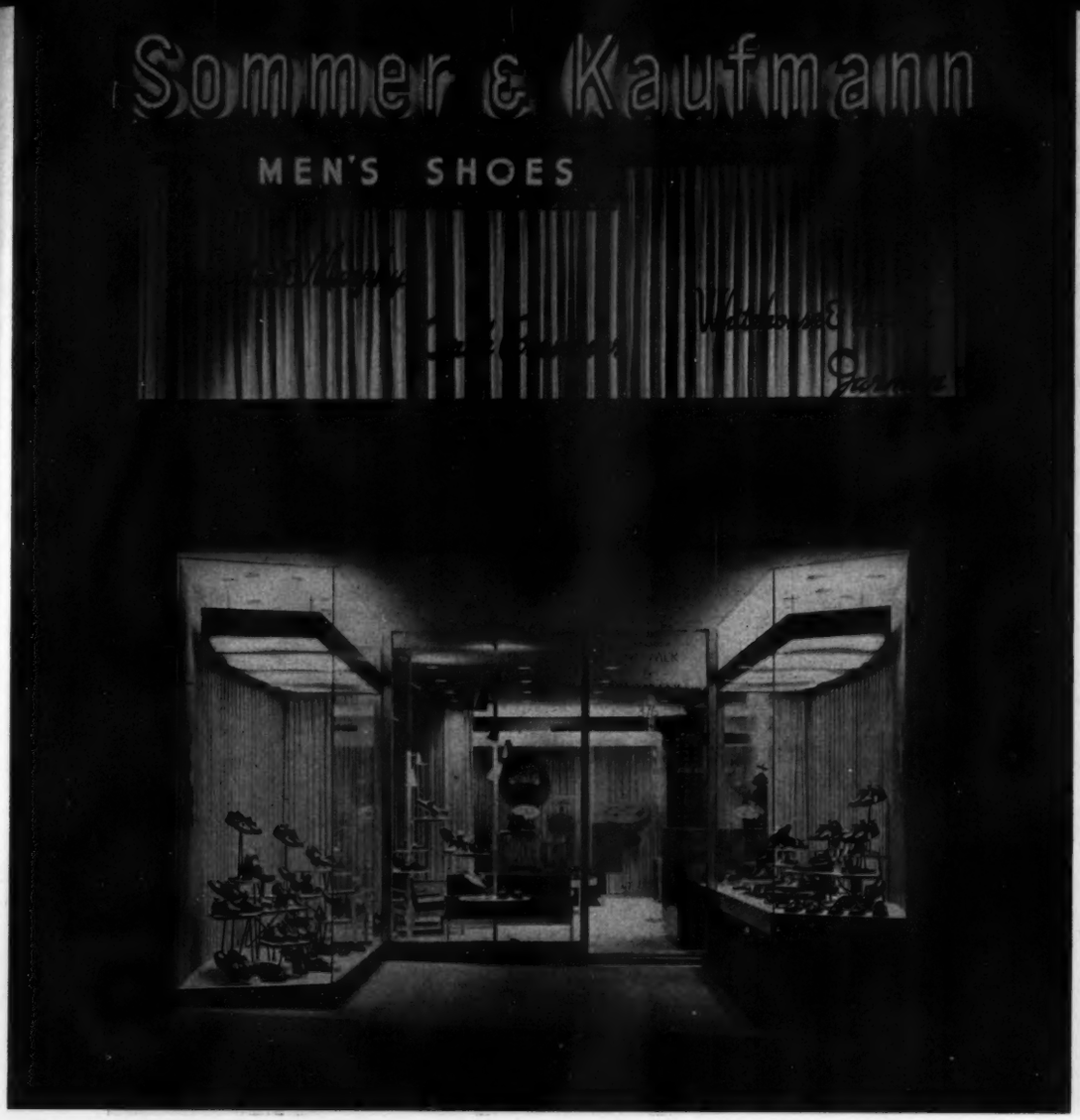
FOODLAND SUPER MARKET

After the precast abutments are anchored and laterally braced, the 65-ft-long precast two-hinged arches are dropped into place much like keystones. Heavy timber purlins are bolted to seat angles



R. Wenkam

Morley Baer



Morley Baer

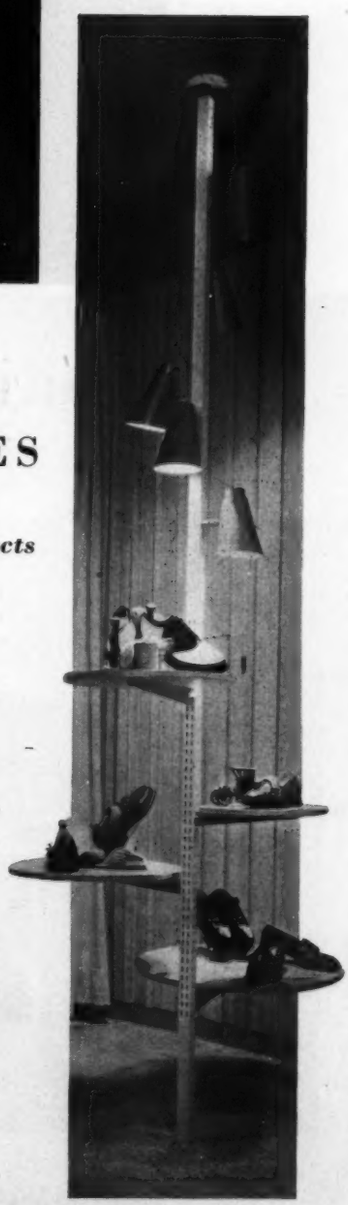
A WEST COAST SHOP FOR MEN'S SHOES

Sommer & Kaufmann, San Francisco — ***Campbell & Wong, Architects***

FOR THIS ATTRACTIVE branch store, the available space was limited: 17 ft wide by 50 ft deep. The usual three requirements had to be met: display, sales and storage. Office work and related activities are carried on in the nearby main store. The display area occupies the first 13 ft; the sales space is 22 ft deep; the rear portion of the first floor and the second floor are devoted to storage.

Shoe display is well handled: at one side the window is at floor level to show merchandise in true perspective; on the opposite side the raised window allows closer examination. Several ingenious adjustable display trees (right) are used to good advantage.

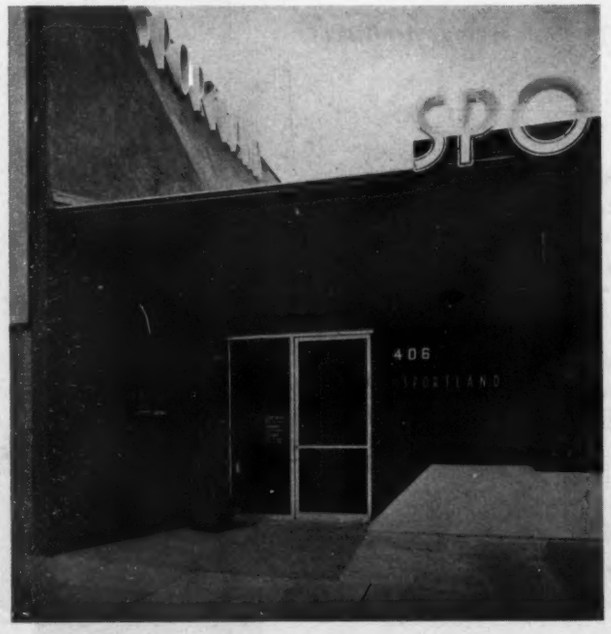
Materials and colors carry out the masculine note: quarry tiled entry; oak fixtures, furniture and vertical panel strips; leather on fixtures and furniture; tweed textured carpet; upholstery, blue linen or brown and copper fabric; blue ceiling; white walls. A space mural by Smith-Tepper-Sundberg lends further decorative interest.





Julius Shulman

SPORTING GOODS STORE IN PASADENA

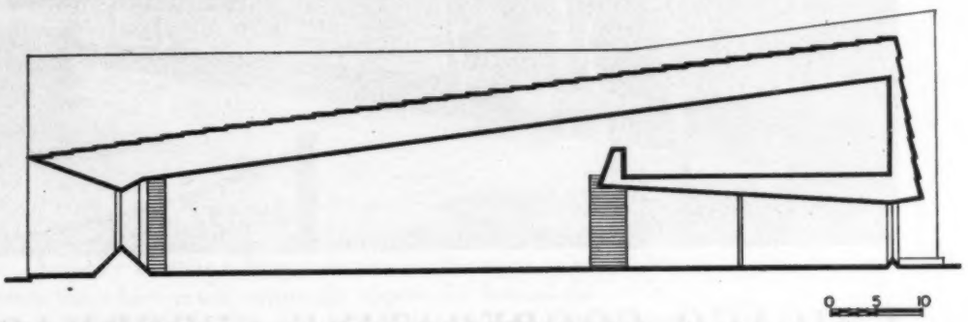


Douglas Honnold and John Rex, Architects

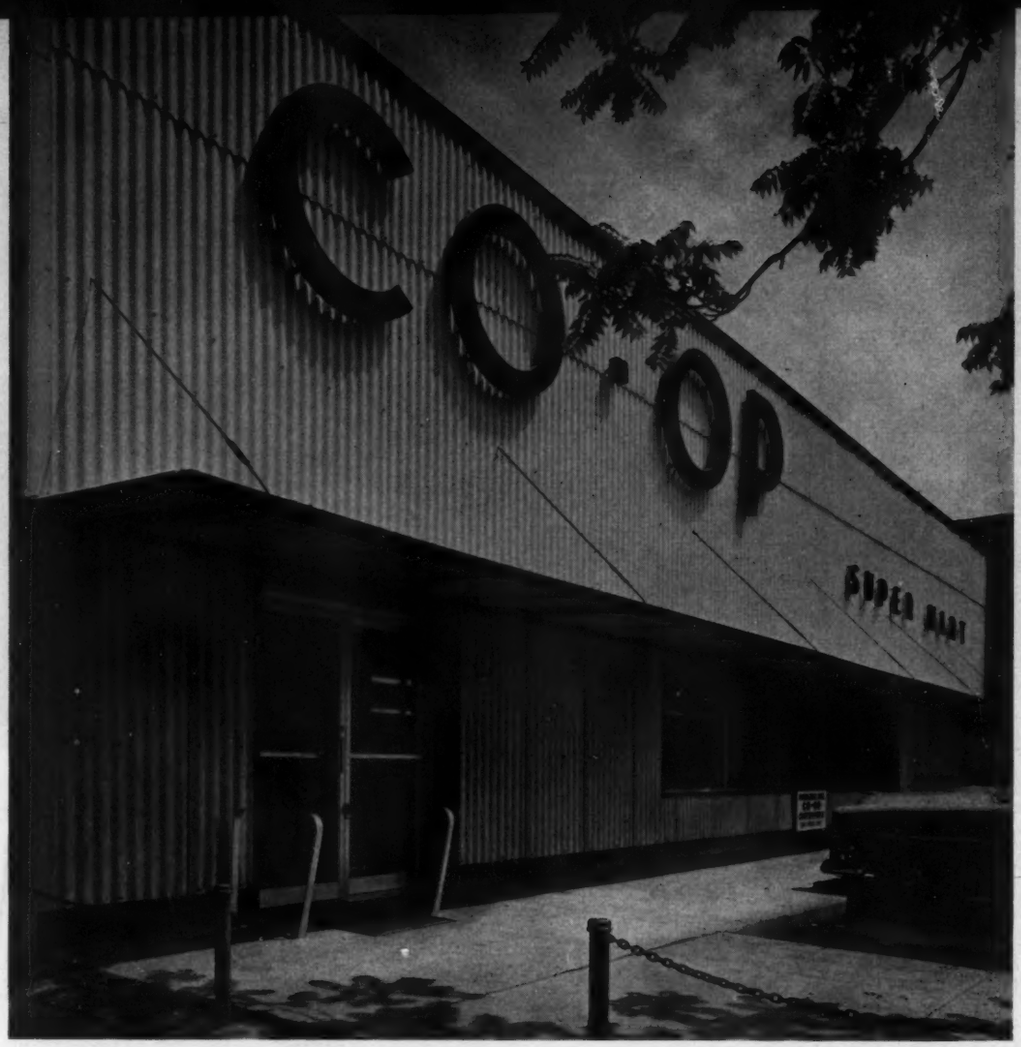
THIS UNUSUAL DESIGN sprang from an interesting set of requirements. The problem was to provide, under limited budget, an 8000-sq-ft air conditioned store possessing maximum flexibility for possible future rental. Also required: rear parking and display; a mezzanine for specialized sales; part basement for storage and work; sun control on street (west) front.

As the section (right) shows, the mezzanine shaped the structure, resulted in roof development as a design element, also provided the overhang for sun control. This shape reduced cubage and cost, located mezzanine and basement at rear for best access, and provided a clear span for flexibility. Built-in fixtures are on side walls, allowing the remaining units to be movable for store plan changes.


SPORTING GOODS
406


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Sportland



CHICAGO COOPERATIVE SUPERMARKET

George Fred Keck — William Keck, Architects *Telander Bros., General Contractors*

LOCATED IN THE University of Chicago area, the Hyde Park Co-op Society has outgrown three locations; now grosses over 1½ million annually. Their newest structure is a remodeled manufacturing building. An adjacent run-down 3-story apartment was demolished to provide a 50-ft-wide parking area running through the block. On account of existing columns and the large area, corridors are diagonal to avoid long "tunnel" effects. The existing brick walls were faced with corrugated asbestos outside and painted gypsum plank inside. Interior walls are white for light reflection; color used at entrances.



Hube Henry Hedrich Blessing

HOSPITALS

ARCHITECTURAL RECORD'S BUILDING TYPES STUDY 220

Facilities for Long Term Patients

RECENT EXTENSION of the government's Hill-Burton program into new types of health facilities is presenting architects with some new fields of activity. The program, presented to the Congress a year ago by President Eisenhower and stressed again in his recent messages, includes four types of buildings: nursing homes, chronic hospitals, rehabilitation facilities and diagnostic centers. Federal money has already been appropriated for assisting the states in surveying their needs, developing state plans, and for construction programs.

Though some of those types sound fairly familiar, the concept of them in the objectives of the program is sufficiently new as to call for reexamination of planning techniques. It is not too strong to say that architects are presented with four virtually new building types. Actually there is a fifth — homes for the aged — which fits into the projected pattern but which is not nominally eligible for federal aid.

The newness of these types springs from the determination to extend and improve the health assistance offered to all kinds of people. The long-term, or chronic, patient has been neglected, not with intent but simply because the right facilities have not been available to treat him properly, or economically. A large proportion of beds in general hospitals is occupied with long-term patients, some of whom don't need so expensive an accommodation, others of whom need a type of therapy not generally available there. Rehabilitation is uppermost in the new thinking, and is a relatively new medical science. In a word, then, the idea is to build facilities for widely different types of care, so that persons handicapped with long-term illness may have proper diagnosis, treatment, rehabilitation (if possible). Also so that medical and nursing skill, and funds, are used to best advantage.

The Division of Hospital Facilities of the Public Health Service, under the direction of Dr. John W. Cronin, has bent its efforts in the direction of insuring that funds will be properly spent. The Technical Services Branch, under Marshall Shaffer, has had its architects studying planning techniques, with the intent, as before, of assisting private architects in the programming phase of their work. Incidentally, private architects will be called upon to do all of the actual planning, local initiative being the watchword in the whole Hill-Burton program.

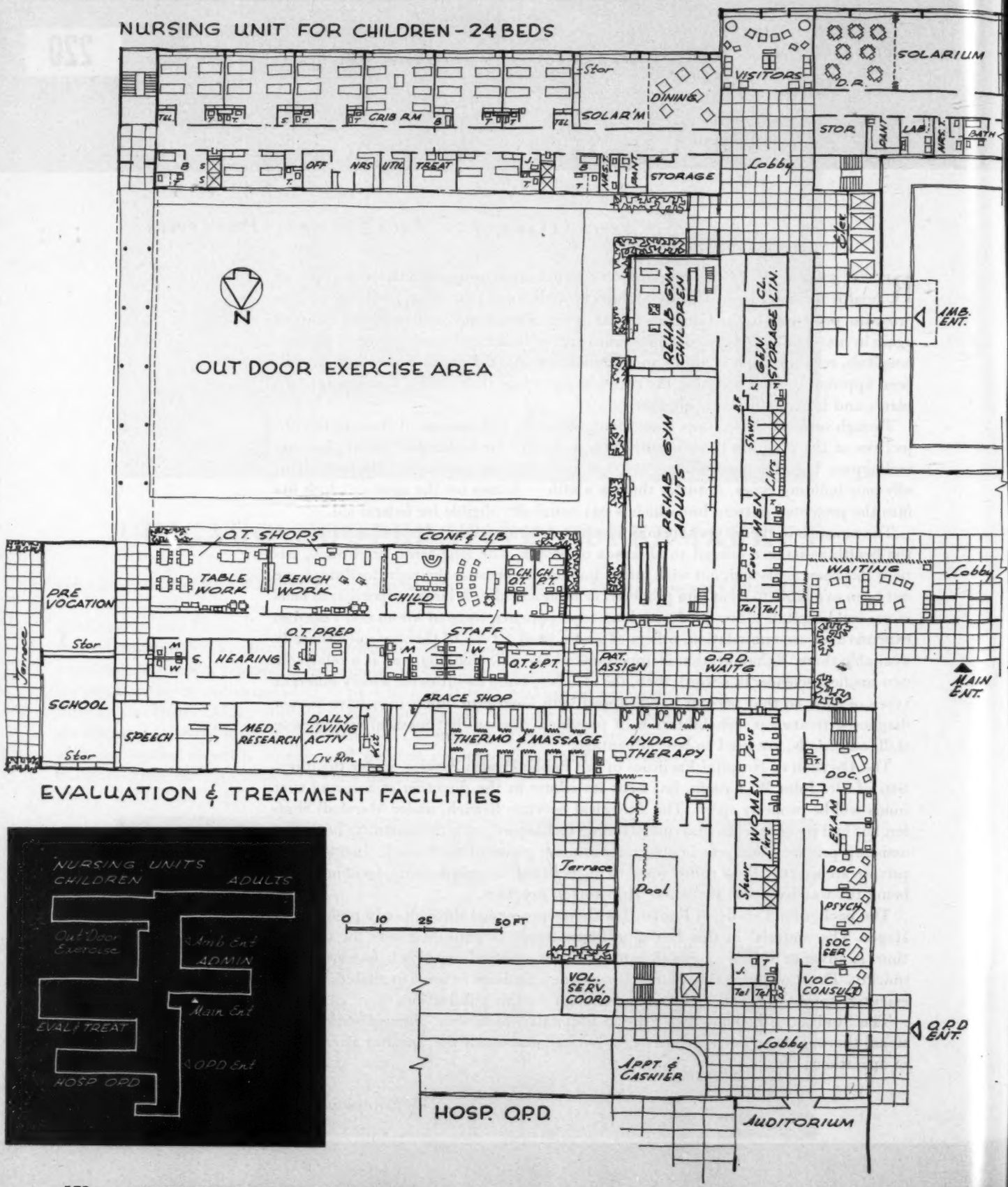
The background study of Public Health has proceeded through only preliminary stages. The material in this Building Types Study is published here for the first time, in advance of final approval, in order to put some information before architects quickly. There will probably be revisions as new findings become available, but the essential approach is considered sound enough for this publication.

The Study also includes two general hospitals which were planned with exceptional thoroughness, one representing a critical analysis of the hospital after a year of operation.

— *Emerson Goble*

REHABILITATION FACILITIES

For Multiple Disability in a



General Hospital

Preliminary Type Plan by
U. S. Public Health Service,
Thomas Galbraith, Architect

REHABILITATION is a big word in the country's new health program. Society realizes that civilization has progressed beyond the "survival of the fittest." Handicapped persons are not to be sloughed off as discards, to be tucked away some place with mere custodial care. So — rehabilitation, for continued usefulness, and a reasonable chance for rewarding activity.

Medical science of rehabilitation made rapid strides during the war. And the benefits of wartime techniques and training programs are now available for peacetime development. The need now is for the necessary physical facilities.

The plan here shown — a preliminary concept by the Public Health Service — is for rehabilitation facilities, for multiple disability, as part of a medical center. The rehabilitation facility might also be conceived as a separate center, for both in-patients and out-patients, again for multiple disability. Or there might be a facility for just out-patients. A fourth concept would be a rehabilitation unit for a single disability — blindness, cerebral palsy, retarded children, alcoholism, etc.

Under the program, priority is given to rehabilitation facilities providing multiple disability service, located in medical centers, medical schools or universities. Reasoning here is that a wide variety of medical specialists is usually required by a patient, especially in the early stages of rehabilitation. There is also a need for developing new techniques, and for training new personnel. Also, it is believed, such concentration of newly financed facilities would give the program the best start.

In official language, a rehabilitation service is defined as: "a facility providing community service which is operated for the primary purpose of assisting in the rehabilitation of disabled persons through an integrated program of medical, psychological, social and vocational evaluation and services under competent professional supervision. The major portion of such evaluation and services must be furnished within the facility; and the facility must be operated either in connection with a hospital or as a facility in which all medical and related health services are prescribed by, or are under the general direction of, persons licensed to practice medicine or surgery in the State."

It is quite clear — from the plan, if not from the legalistic language — that rehabilitation here represents an all-out attack. The "multiple disability" phrase means that the facility might serve patients with many different types of infirmities: orthopedic cases, disabilities from injuries, arthritis, diseases of the heart or arteries, and neurological problems. With children there might be also post-polio, congenital malformations, and children's neurological problems. A considerable range of physical facilities is therefore required, yet many of those facilities would be useful to several classifications of patients. All-important is the availability of fairly complete medical services for such diverse patient groups.

As for planning the buildings, a considerable fund of data has been accumulated in the Public Health Service; for purposes of this preliminary presentation only general notes will be given.

Major elements of the rehabilitation unit include:

Administration Facilities

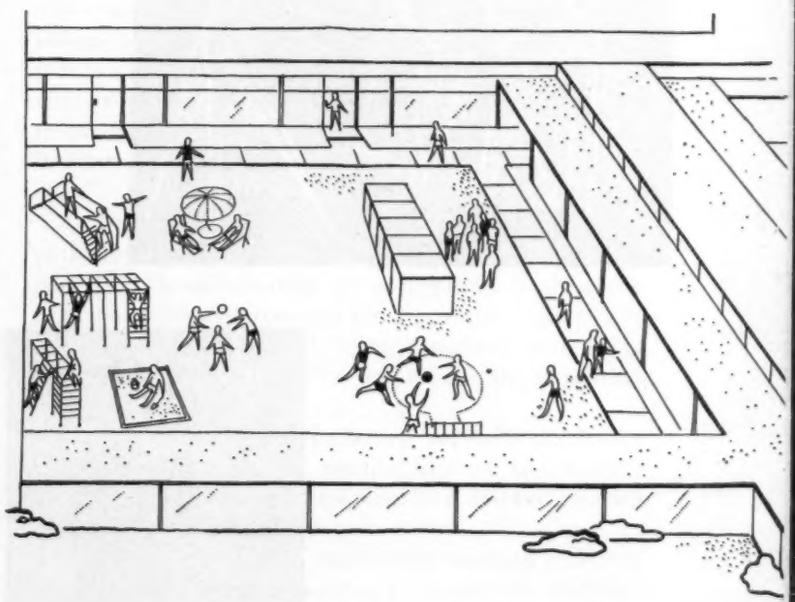
Evaluation and Treatment Facilities

1. Medical Facilities, including: Dental; Physical Therapy; Occupational Therapy; Teaching Activities of Daily Living; Speech and Hearing; Artificial Appliance Facilities; Nursing Units for Adults; Nursing Units for Children
2. Psychological Facilities

Social Service Facilities

Vocational Facilities

Wherever practicable, all of those elements should be located together within the department, for better coordination of the services and efficiency of operation. Some of the elements may already exist in a hospital, and would not necessarily have to be repeated. In addition to the services indicated, some patients might need additional facilities in the hospital, such as X-ray, laboratory, surgery, pharmacy, etc.

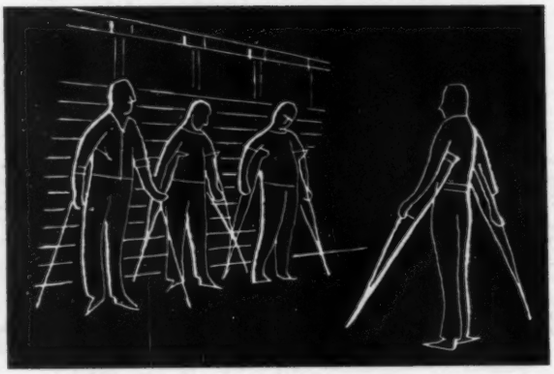


A ground floor location has several advantages. Access to outdoors and treatment areas without recourse to elevators is desirable, and out-patients would be well served.

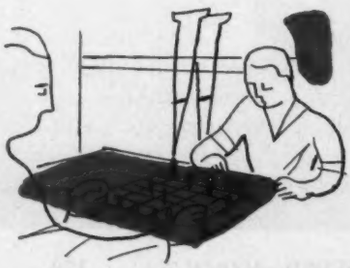
The size of the facility will be based on the findings











of the survey of needs of the region served. It should be remembered, in the study of size, that the out-patient load is usually much larger than the in-patient load. The service of the facility will probably extend beyond the boundaries of the local community, since a complete rehabilitation program is not feasible for most small hospitals.

The accompanying plans suggest an adult nursing unit of 38 beds and a unit for children of 24 beds and 6 cribs. Capacity of these units should not be considered a recommended ratio. It has been estimated that from 25 to 30 per cent of the total beds in the rehabilitation unit may be children's beds, with 14 years as the top age for children.

Grouping of disabled patients in a separate unit is psychologically advantageous. The morale of the individual is improved by knowing that admission to this unit indicates a good prognosis for recovery, and he tends to concentrate on showing maximum improvement. Grouping also facilitates more effective care. Moreover, requirements for housing such patients differ considerably from those of general hospital patients.

Many of the rehabilitation patients are up and active each day, getting around on crutches, wheel chairs and wheel stretchers. It should be recognized that such traffic requires greater clearances in bedrooms, day room, toilets, etc.

Although individual cases will vary widely, it is estimated that the length of stay will average approximately 60 days. The psychological needs of long-term patients should be considered in the general approach to design.

The number of beds in the adult unit may be greater than that usually recommended for medical and surgical units. Most patients will not need intensive bedside care and approximately 75 per cent may be ambulant or semi-ambulant. A capacity of 35 to 40 beds is recommended for economy and convenience in operation; 50 beds appears to be the maximum.

Need for flexibility in general medical and surgical units has resulted in the use of more single and two-bed rooms. In contrast, the requirements of rehabilitation patients appear to be best met with four-bed rooms. Social contact and opportunity to observe the progress of their roommates in bed exercises and other activities of daily living has a stimulating and therapeutic value. Competition arises in the group, and patients encourage and assist each other. Finally, the therapeutist's time is more efficiently utilized.

A few smaller rooms are desirable for the occasional use of a patient in need of a period of orientation, or one with a pronounced personality problem.

Accommodations for children in the rehabilitation facility of a hospital gives them access to essential medical services which often are not found in small specialized children's facilities, in no way impairs function, and results in better total service on a sound economical basis. It is essential to separate in-patient facilities from those for adults. Fourteen years is considered maximum age for children in the nursing unit; 30 beds including cribs is a good size.

CHRONIC DISEASE HOSPITAL

Preliminary Type Plan by
U. S. Public Health Service,
Peter Jensen, Architect



IN RECENT YEARS chronic disease hospitals have come in for new attention; in effect a new concept for such a hospital is being proposed. It has long been said that a high proportion of beds in most general hospitals are occupied by long-term patients, some of whom do not need such expensive quarters, such skilled medical attention, others of whom might require special services not available where they are. The broadening of the federal government's efforts in health facilities contemplate some sorting out of patients into chronic disease hospitals, rehabilitation centers, or nursing homes as new buildings can become available.

The Commission on Chronic Illness suggests that chronic patients should be treated and cared for at general hospitals or in special nursing units connected with general hospitals. However, many long-term patients are being treated and cared for in chronic disease hospitals.

Rehabilitation of long-term patients is a major part of this plan, whether in chronic disease hospitals or in separate rehabilitation centers. With the new skills in this area, it is said, many so-called chronic patients could be restored to active living, in some degree, and might not need hospital care at all.

These laudable objectives have led to serious study of the role of the chronic hospital, and perhaps some confusion. There is no difficulty, of course, in understanding the function of the specialized chronic hospital — for tuberculosis, for example, or heart cases. But the multiple disability type of chronic hospital, such as proposed now, has started some discussion as to medical facilities to be included, with an evident leaning toward the idea that very good medical facilities are required.

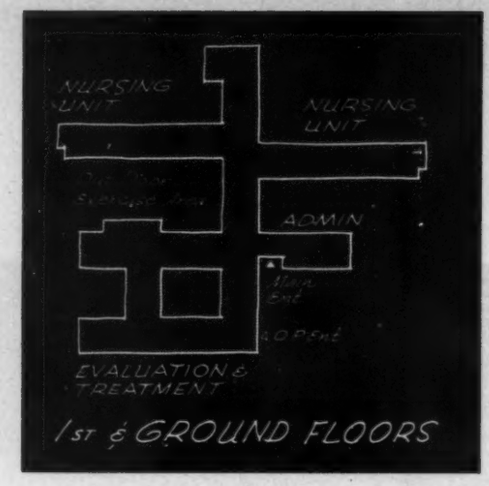
In federal regulations covering the state-aid program, the chronic disease hospital is defined: "a hospital for the treatment of chronic illness, including the degenerative diseases, in which treatment and care is administered by or under the direction of persons licensed to practice medicine or surgery in the State. The term does not include hospitals primarily for the care of the mentally ill or tuberculosis patients, nursing homes, and institutions the primary purpose of which is domicilliary care."

A chronic hospital provides services primarily to patients with non-acute illness for whom a prolonged period of hospitalization is anticipated, and whose principal care requirements are diagnosis, medication, nursing care, occupational therapy, medical social work, recreation and rehabilitation including some education and pre-vocational work.

The preliminary plan presented herewith illustrates space requirements and relationships of the various departments and services required in a 300-bed chronic disease hospital.

The first floor of this multi-story hospital contains complete rehabilitation facilities for in-patients and out-patients who can benefit most from these services. The rehabilitation portion shown closely follows the rehabilitation facility outlined for the medical center (page 178). It must be remembered that all chronic disease hospitals may not have such extensive facilities as shown in this plan.

This multi-story facility has two nursing units of 36 beds each on the first floor to accommodate those patients who can benefit most from the services provided on this floor, such as the departments of physical



NURSING UNIT FOR ADULT REHAB PATIENTS

PRE VOCATIONAL TRAINING

OUT PATIENTS

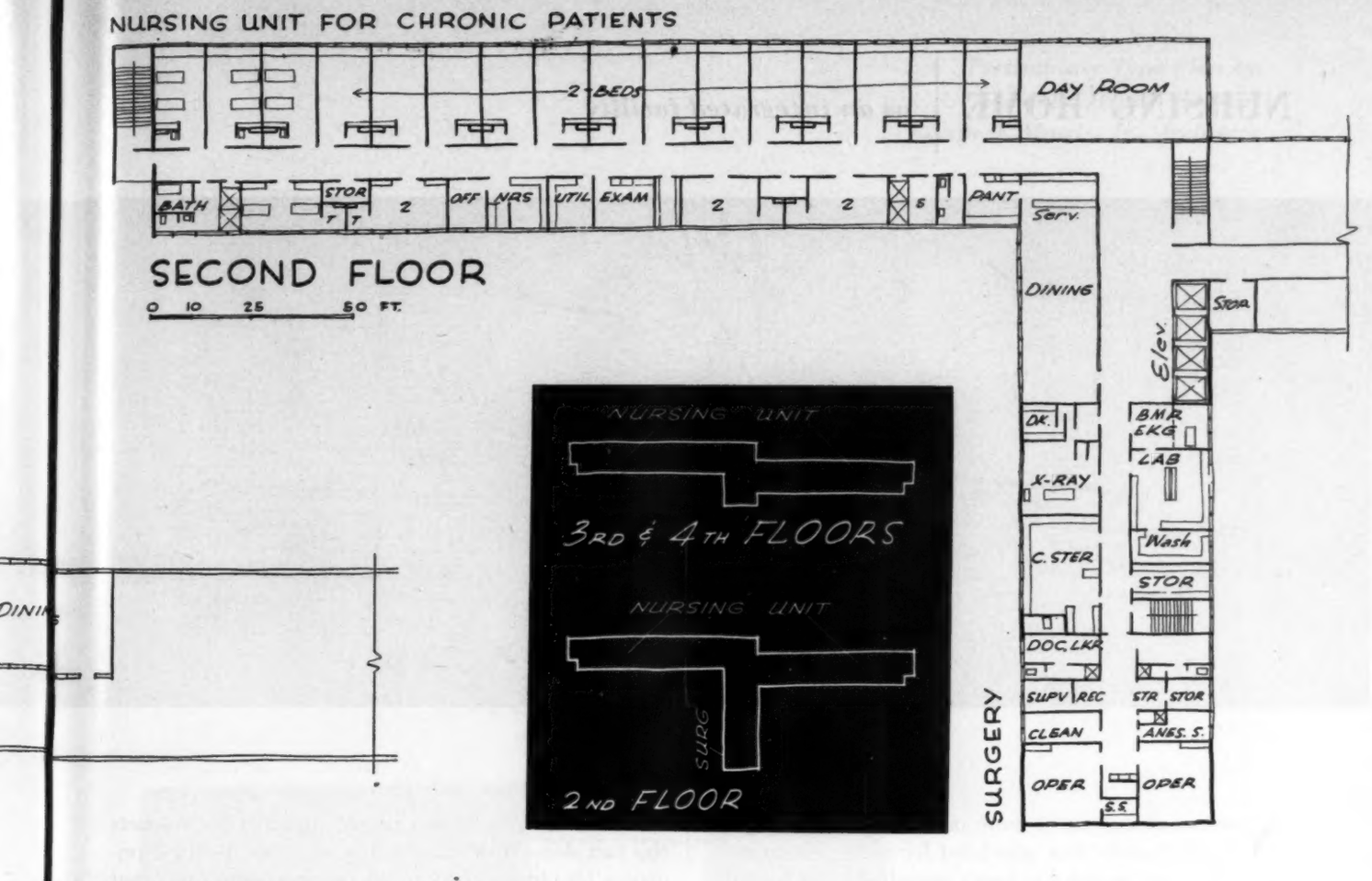
FIRST FLOOR

GROUND FLOOR SIMILAR

CONTAINING SERVICE FACILITIES

0 10 25 50 FT

EVALUATION & TREATMENT FACILITIES



medicine, rehabilitation, occupational therapy and recreational facilities. About 75 per cent of the patients on this service are ambulant or semi-ambulant.

The remaining six nursing units of 37 and 38 beds each on the second, third and fourth floors would be occupied by the more acute patients. Some 60 to 75 per cent of these patients are ambulant or semi-ambulant and can ambulate to and from the day rooms, dining rooms and wash rooms provided on these floors. Diagnostic facilities, such as X-ray, laboratory, BMR and EKG are located in a separate wing on the second floor (available for out-patients) as are also the operating suite and central sterilizing and supply rooms.

The out-patient department, pharmacy and the administration department are, as is customary, located on the first floor. Dietary facilities, staff and help's dining rooms, help's locker rooms, nurses' locker rooms, store rooms, laundry, autopsy and morgue are on the ground floor (not shown).

The major departments and facilities of a chronic disease hospital are administration department, diagnostic and treatment facilities, nursing department, surgical department, service dietary and out-patient departments. Except for the rehabilitation nursing units and the treatment facilities of the department of physical medicine the function and locations of the other departments are basically the same as in the general hospital.



NURSING HOME | *as an integrated facility*



NURSING HOMES are a more or less familiar type of health facility now scheduled for some reexamination. They are included in types now eligible for federal aid, but there are a few provisos calculated to insure a high level of patient care.

Those conditions are stated in the official definition of a nursing home: "a facility which is operated in connection with a hospital, or in which nursing care and medical services are prescribed by or performed under the general direction of persons licensed to practice medicine or surgery in the State, for the accommodation of convalescents or other persons who are not acutely ill and not in need of hospital care, but who do require skilled nursing care and related medical services. The term 'nursing home' shall be restricted to those facilities, the purpose of which is to provide skilled nursing care and related medical services for a period of not less than 24 hours per day to individuals admitted because of illness, disease, or physical or mental infirmity and which provide a community service." They must also be operated by non-profit organizations.

The emphasis on medical care does not seriously strain the planning and equipping of the nursing home; it is not contemplated that the home have its own medical facilities. What is insisted upon is real medical supervision plus some tie-up with a hospital or other arrangement which would insure that medical attention was available on call. Implicit in that proviso are some factors influencing location of the home, and, of course, its organization.

Definitely the nursing home is for persons needing nursing care — not merely for somebody's Aunt Matilda who talks too much at home. Thus it is planned for the needs of partially sick people, and in a few respects this fact does effect its planning. It is not designed primarily for old people, but the common infirmities that come with age will bring many such patients to the home.

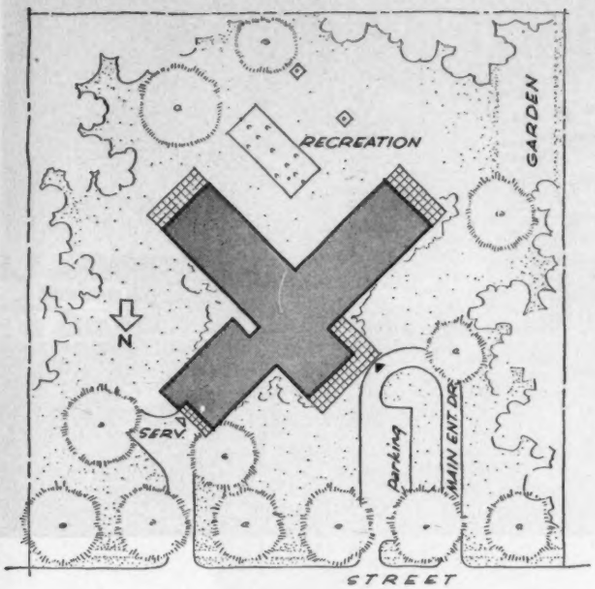
As a planning assignment the nursing home should appeal to the small architectural office. It is definitely not in the hospital category as to complications, though medical considerations do enter into the planning. Most important, it is a minimum facility, small in scale and domestic in character. It is a neighborhood affair, closely identified with the life and needs of a community, and designed as such. It should settle into the community, so that patients have no feeling of moving into a strange and institutional environment, so that friends and relatives can visit frequently and informally. More specifically, it should not have more than fifty beds, preferably about half that.

Clearly the site should be suitable for attractive landscaping, with space for some outdoor activity, if only sitting in the sunshine. Most important of all, however, it should not be isolated from community interests and activities. Patients should be able to observe the comings and goings of the community, to maintain a feeling of participation and to keep interests outside themselves or their fellow patients. Many of them will be there for a lengthy stay, and boredom will be a constant threat to health and morale.

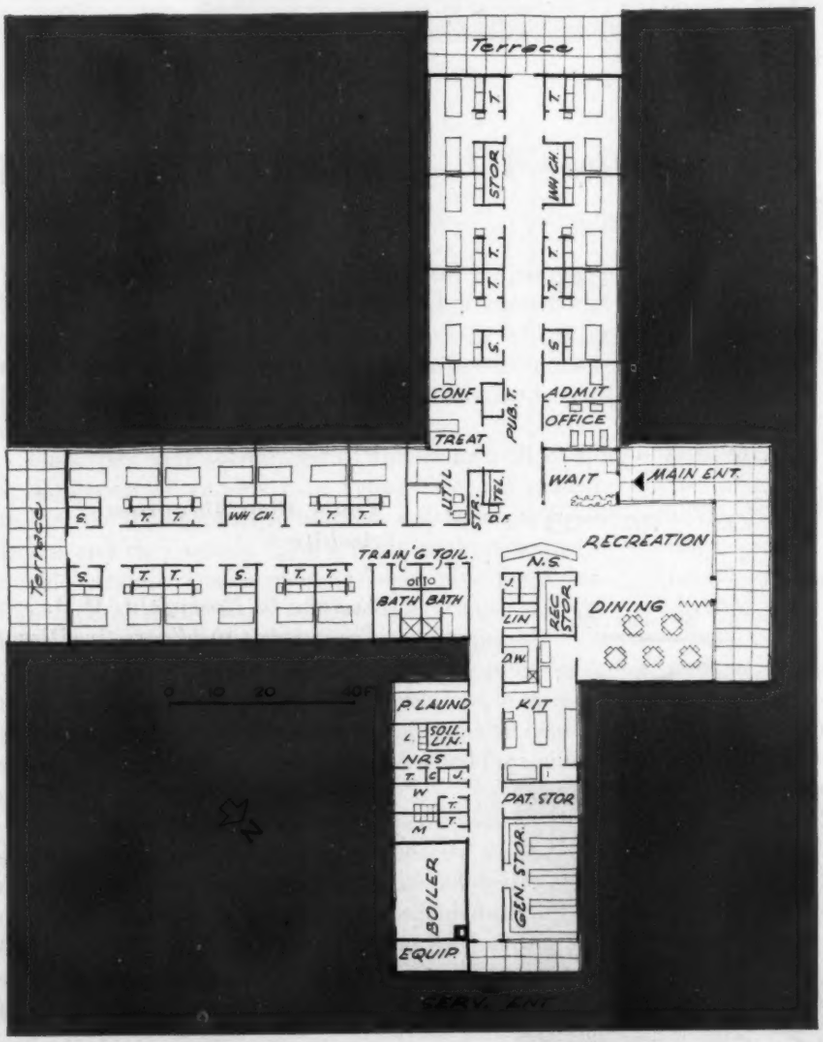
It should be made as easy as possible for visitors to come, and for patients to go out to stores, churches, and so on, as they are able.

The plan on the opposite page suggests a generally satisfactory arrangement. A one-story building is usually

Preliminary Type Plan by
U. S. Public Health Service,
Edwin B. Morris, Jr., Architect

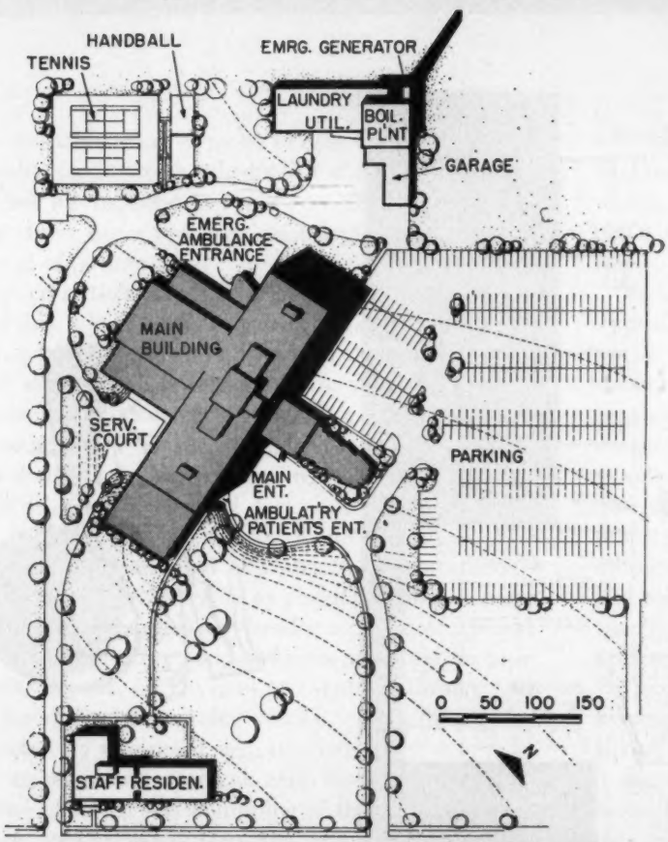


recommended, for obvious reasons. Here one wing takes all the services; wings for patients focus on the nurses' station as a control point. A large area combines for recreational and dining space, near the entrance, near the center of activities. It would be nice if the program afforded an additional solarium or lounge area, so that different groups or activities need not always be thrown together. Rooms are generally two-bed rooms, with each bed near the window. There are some single rooms, for the ill or poorly adjusted patients. There are scarcely any real medical facilities, but there are special toilets and baths designed to accommodate wheel chairs and arranged for the training of certain handicapped persons who must learn new methods of scrambling in and out of bathtubs.











PLAN-TYPE STUDY

Long Island Jewish Hospital
Glen Oaks, L. I., N. Y.

Louis Allen Abramson
Architect

Eugene D. Rosenfeld, M.D.
Consultant and Executive Director

Hoffberg & Ateshoglou
Structural Engineers

Slocum & Fuller
Mechanical Engineers

Leo A. Novick
Landscape Architect

Turner Construction Co.
Builders

Ben Schnall



PRECEDES BUILDING OF LARGE GENERAL HOSPITAL

ENTHUSIASTIC SUPPORT for this hospital project gave the architect and hospital consultant an exceptional opportunity. They had the kind of backing which, in their own words, "fosters an atmosphere in which imaginative planning and bold departures receive ready consideration if not enthusiastic backing."

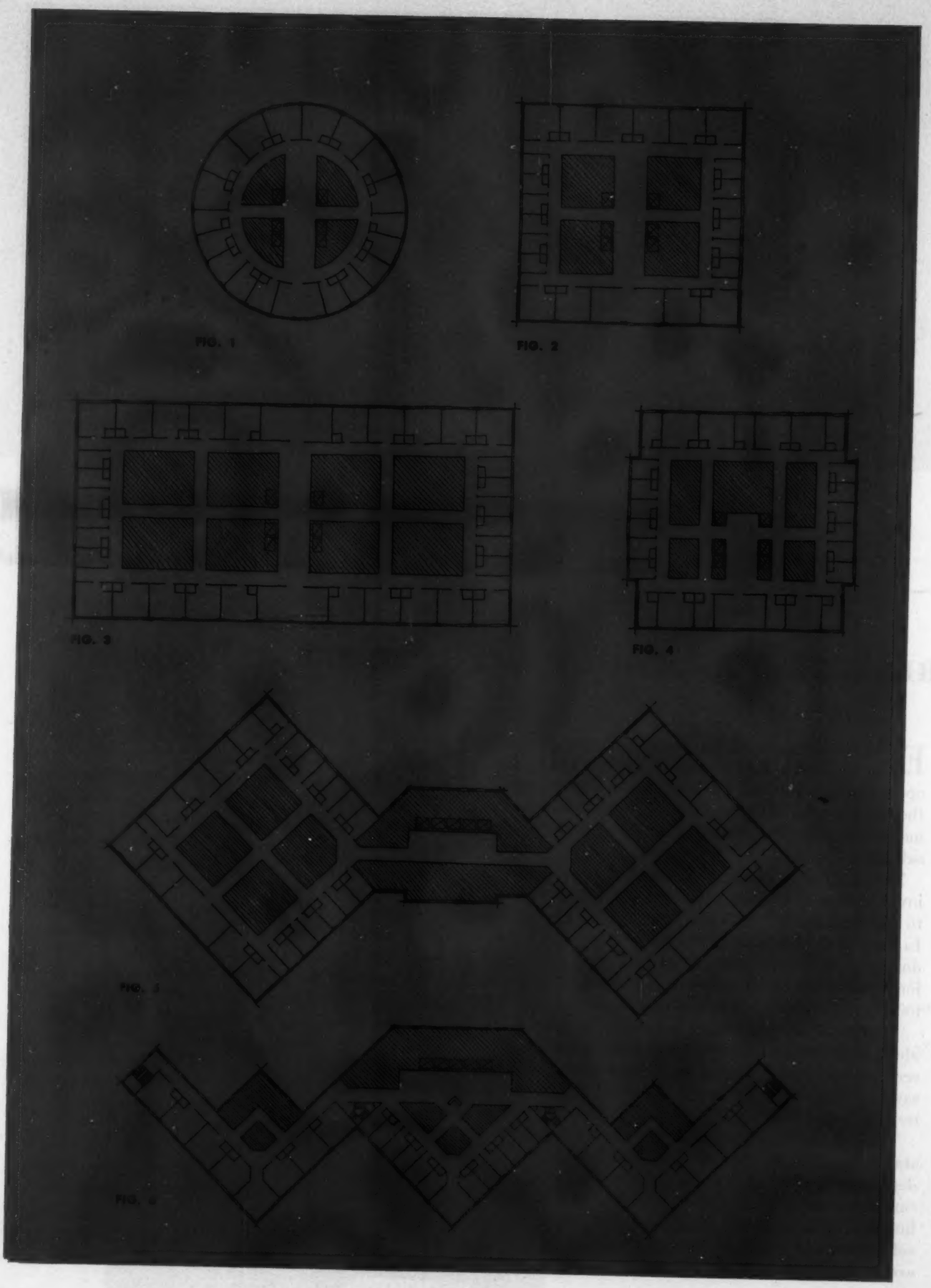
Thus they were encouraged to undertake a thorough investigation of various plan types, however radical, to find the scheme that would best suit their purposes. In the end they settled upon a fairly simple form with double corridor arrangement, as this gave good performance in many important considerations, and the minimum perimeter per bed (see next two pages).

They were also encouraged to investigate progressive ideas in mechanical systems and innovations in medical service equipment, including an ingenious panel heating system in which cool well water is circulated for summer cooling (*page 190*).

The hospital was planned for construction in three stages, to reach an ultimate bed capacity of 500. All departments were either created at the 500-bed level or can be expanded to that level without disturbance to first installations. In the initial phase the building has sub-basement, ground and five floors; it will be expanded eventually by the addition of four floors and the extension of wings on three sides. Original per-bed costs are therefore somewhat high — $23,094, will rise even higher in the second phase, in which will be added a laundry, staff residence building, premature nursery center, and auditorium. In the final stage, however, with the additional beds to warrant this total plant, the per-bed cost is estimated to come down to $16,469 (*see table, page 195*).

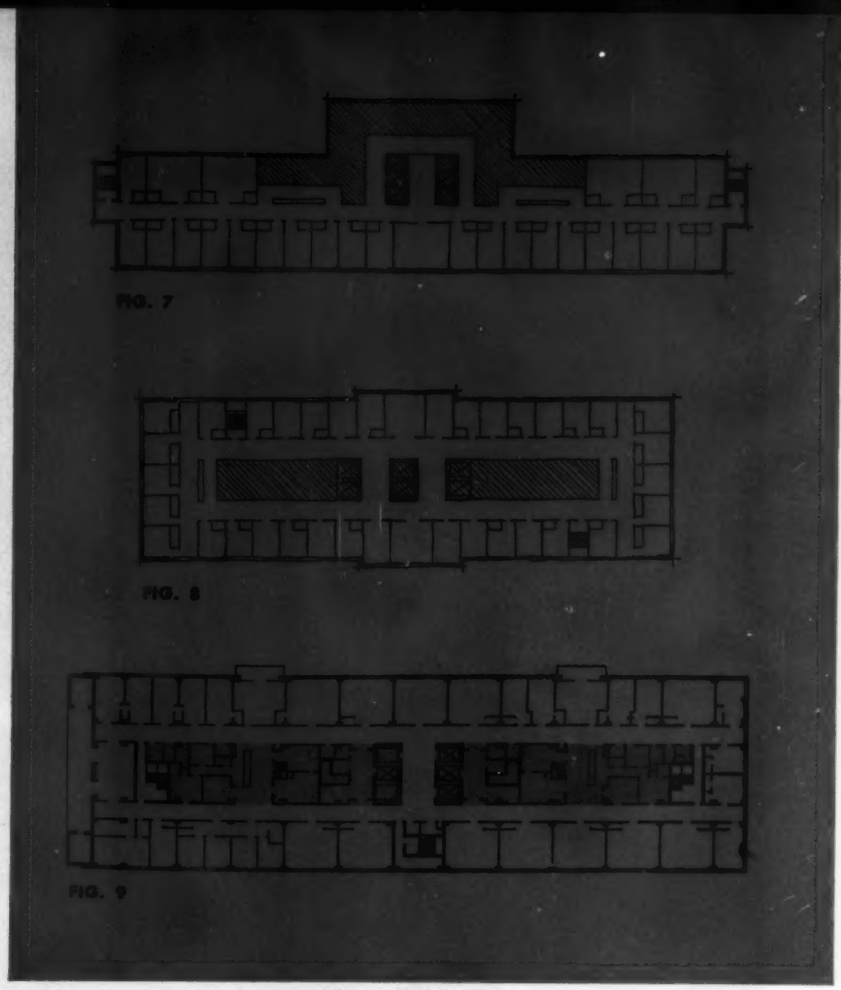
The Long Island Jewish Hospital occupies a beautifully wooded eight-and-a-half acre site almost at the boundary between Queens and Nassau Counties. The site was made available by the adjoining Hillside Hospital, a voluntary psychiatric hospital for noncommitted patients, which is also affiliated with the Federation of Jewish Philanthropies. The two hospitals thus share 52 acres of contiguous land and enjoy joint landscaping. Perhaps more importantly, they have a rare opportunity for developing coordinated programs for the care of mentally and physically ill.

Funds for the building came from Hill-Burton disbursements, a grant from the Federation of Jewish Philanthropies and a local fund-raising campaign which brought more than $4,000,000 initially. The hospital will serve the rapidly expanding population of Long Island on a non-sectarian basis.



COMPARATIVE ANALYSIS

	Scheme		
	Fig. 7	*Fig. 8*	*Final*
Area per floor (sq ft)	15,853	16,346	20,908
Total perimeter (ft)	682	610	687
Beds per floor	56	45	80
Area per bed	283	363	262
Perimeter per bed (ft)	12.2	13.6	8.6
Beds per nursing unit	28	23	40
Nurses station to dist. bed (ft)	67	82	70
Utility room to dist. bed (ft)	76	62	80
Pantry to dist. bed (ft)	175	140	83
Ratio of patient room area to total area	55%	43%	51%



FINDING THE FUNCTIONAL FORM

When the planning began for the Long Island Jewish Hospital, it was agreed that time and distance involved in giving essential services to patients would be considered the controlling criteria. Architect and consultant further decided to consider nursing units with from 30 to 40 beds, with no more than four beds to wards and with mostly semi-private and private rooms.

With these agreed objectives they set out to study various plan schemes, in search of the best form in terms of total perimeter per bed, area per bed, ratio of patient room area to total area, and optimum distances from the farthest bed to nurses' station, utility room and pantry. The studies were to be made, at least initially, without consideration of costs or esthetics.

To begin with, a number of studies were made of circular form, such as in *Fig. 1*, with all ancillary facilities in the hub. Circular forms were abandoned when it became apparent that for the size of nursing unit desired, the periphery exceeded that of any other plan; also that multiple nursing units presented difficulties. The square plan of *Fig. 2* was abandoned for the same reasons.

Next came rectangular form of various sizes, enclosing both single and double nursing units (*Fig. 3 and 4*). These two, basically modifications of the square form, ran to excessively long principal and secondary corridors for the specified number of beds per nursing unit.

The basic square was then studied in dumbbell form (*Fig. 5*), with nursing units joined by an elevator and service core at the center. This idea showed several disadvantages, principally an excessive area in the connecting link.

The novel W scheme in *Fig. 6* was also drawn for study, but it was quickly apparent that this pattern would complicate nurses' travel and nurses' control — there would have to be three control points instead of two, or else the nurses would need roller skates.

The plan in *Fig. 7* is a more traditional single corridor layout with a central enlargement for service area. This is one in the comparison shown in the table, and does not show up too badly.

Fig. 8 starts the double corridor study; it has twin nursing units, with nurses' station at either end. Out of this one came the final form, *Fig. 9*, with larger nursing units, two of them, and with nurses' stations centrally located in both halves of the whole floor plan. It is really a sort of enlargement of the previous scheme, and, as the table shows, keeps the travel distances within reasonable limits and gives the smallest figure for lineal feet of perimeter per bed. In this final plan, the one adopted, wherever practicable the service rooms open off of cross corridors. The ratio of patient area to total was not the least of the schemes, but was good.

Finally, the adopted scheme pointed to definite construction economies. The architect points out that the savings due to the simpler form with its uniform module, were actually sufficient to permit the inclusion of a system of air conditioning throughout the building.



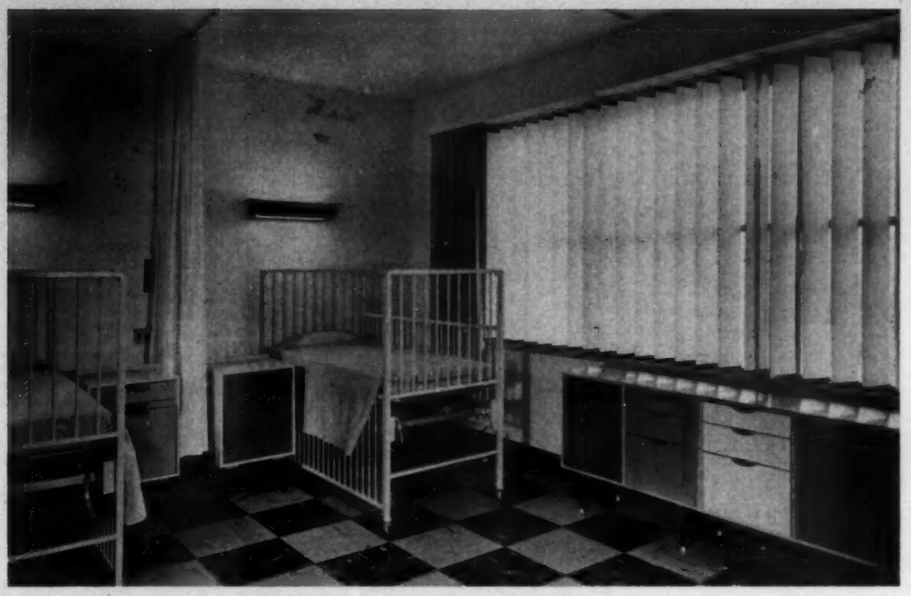
Above: day room in pediatrics department, fourth floor: notice that balcony has wire mesh to full height, for absolute safety. Below, left: dayroom in one of the other nursing units. Below, right: director's office, first floor. Many of the interiors were designed by Designs for Business, Inc.

All rooms in the hospital will have year-round air conditioning, through a unique system. Heating is by a panel system with hot water circulating in coils in the wall and the ceiling. In the interior rooms this heated air system is circulated by forced draft, and the ducts are used for circulated cooled air in summer. The panels in the exterior rooms are used in warm weather for the circulation of cool well water. This water is pumped to the coils through a modified heat pump arrangement, which is expected to reduce fuel bills. This heating system is controlled by an intricate system of indoor and outdoor thermostats, providing individual adjustment in separate areas.



Ben Schnall



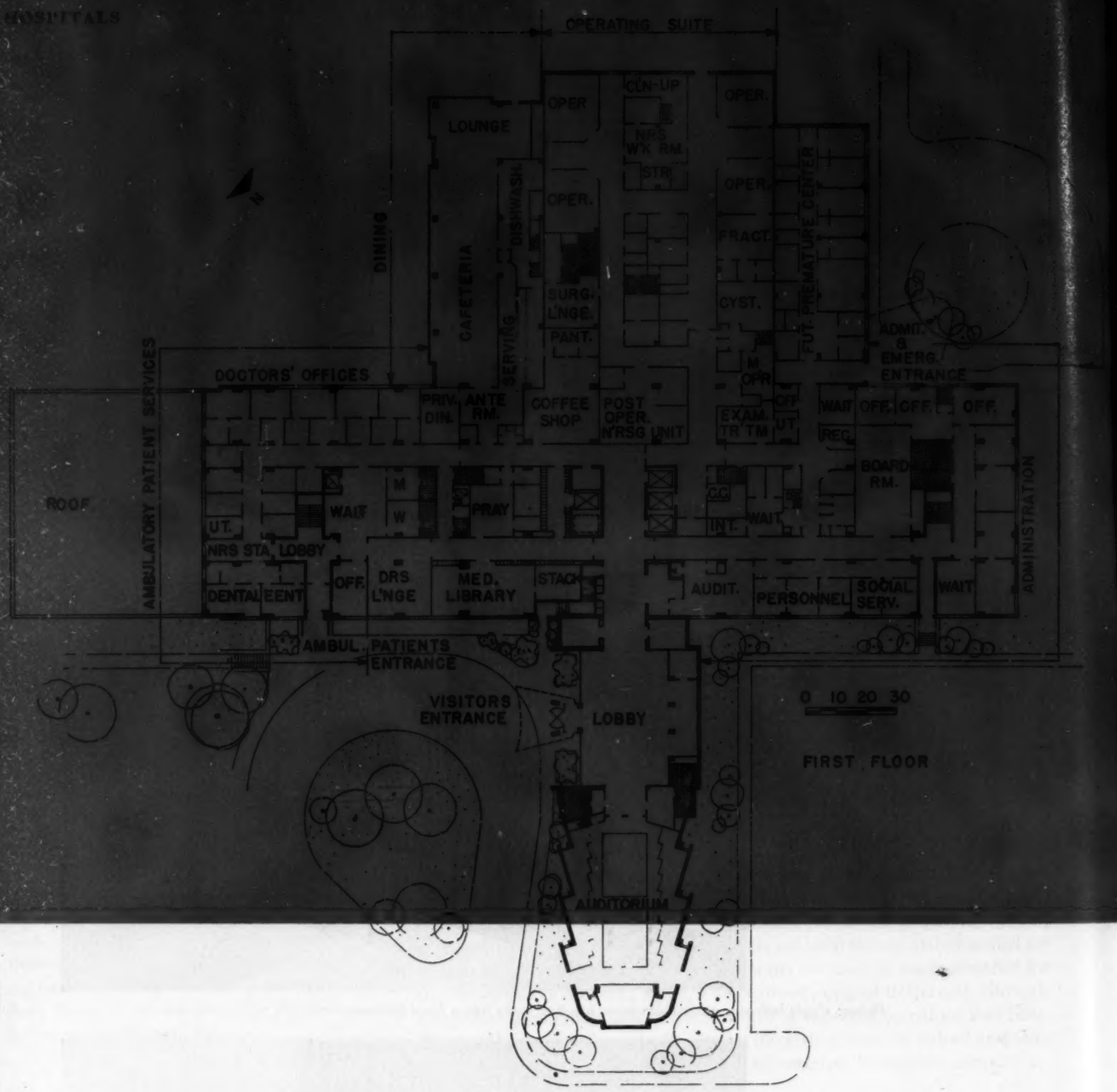


Above: four-bed ward in pediatrics department; below: four-bed ward for adults

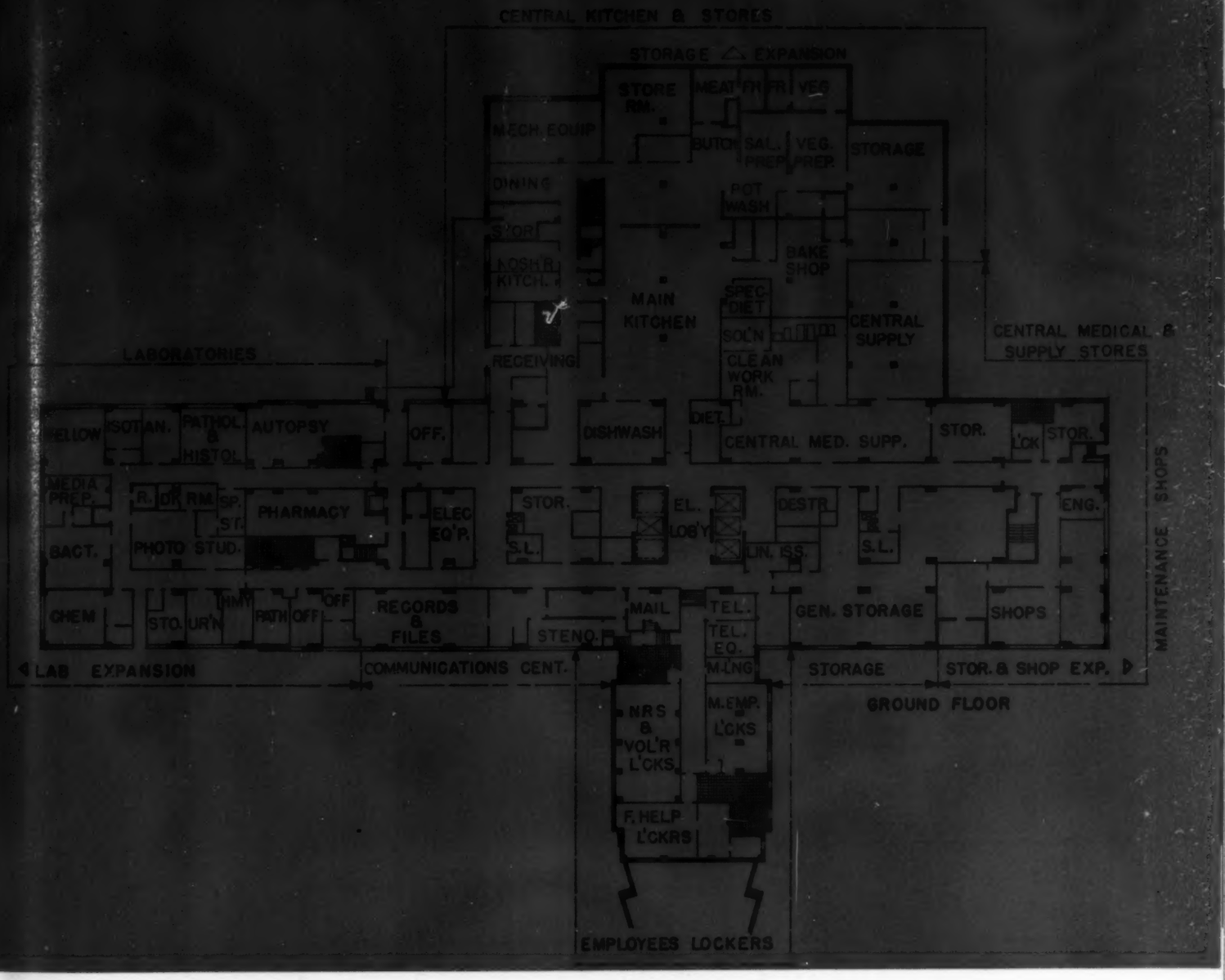


Below: single bedroom at outside corner location looks like a hotel bedroom

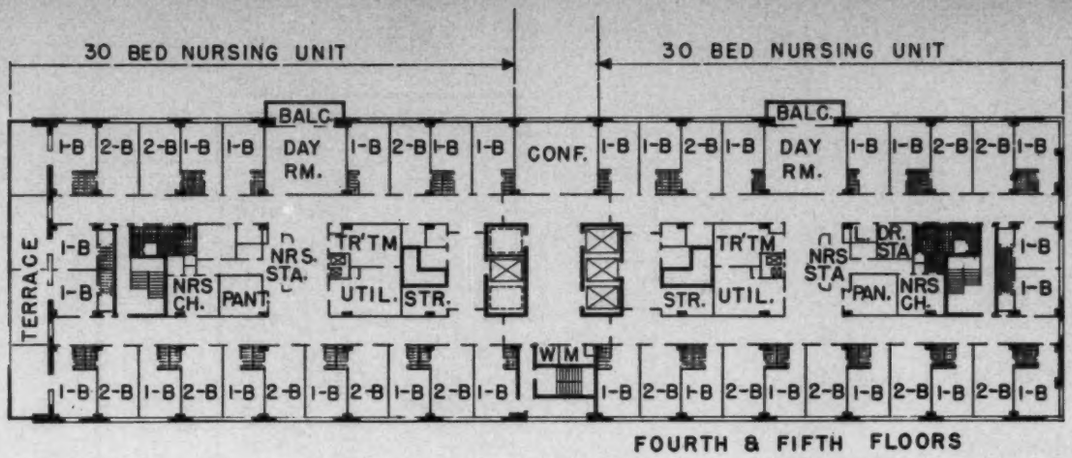




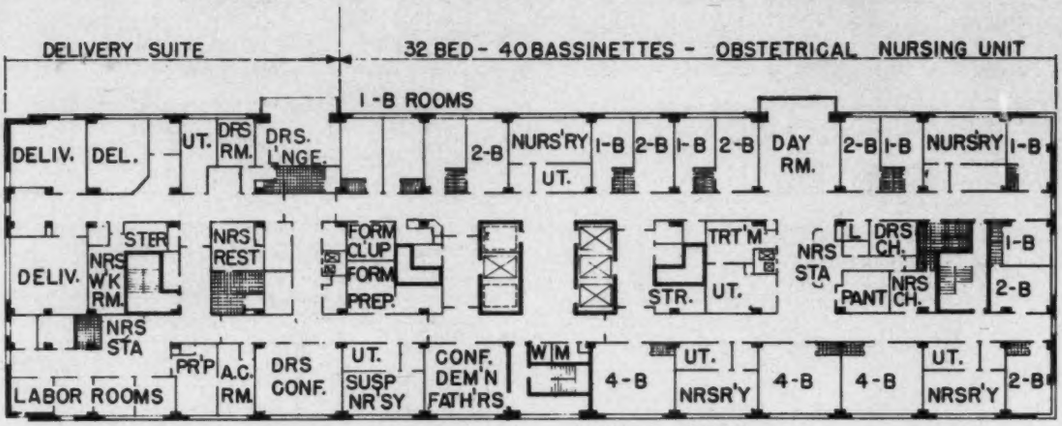
Basic cruciform scheme of first floor plan permits expansion in three directions without serious disturbance to the functioning of any department. As a matter of fact, many of the departments are already oversize for the present bed capacity of the hospital, in anticipation of the eventual development. All utilities, risers, air conditioning equipment, power plant, laundry, kitchen and dining service, were created at the 500-bed level. Expansion was thus the reason for putting laboratory and diagnostic services, also operating suite, on the ground floor. Here, too, they can easily have extra ceiling height, also the facilities of these departments are readily available for emergency cases. Ambulatory patient services are designed to handle from 25,000 to 30,000 out-patient visits per year. Notice that there is a separate out-patient entrance to keep traffic separated.


CENTRAL KITCHEN & STORES
STORAGE EXPANSION
STORE RM.
MEAT
FISH
VEG
MECH. EQUIP
BUTCH
SAL. PREP
VEG. PREP.
STORAGE
DINING
POT WASH
S'OR
BAKE SHOP
KOSHER KITCH.
MAIN KITCHEN
SPEC. DIET
SOL'N
CENTRAL SUPPLY
CLEAN WORK RM.
CENTRAL MEDICAL & SUPPLY STORES
LABORATORIES
RECEIVING
DIET.
CENTRAL MED. SUPP.
STOR.
L'CK
STOR.
YELLOW
SOT.
AN.
PATH. HISTOL.
AUTOPSY
OFF.
DISHWASH
MEDIA PREP.
R.
DK. RM.
SP. ST.
PHARMACY
ELEC EQ'P.
STOR.
EL. LOB'Y
DESTR.
ENG.
BACT.
PHOTO STUD.
S.L.
UN. ISS.
S.L.
CHEM
STO.
UR'N
HMY
PATH
OFF
OFF
RECORDS & FILES
STENO.
MAIL
TEL.
TEL. EQ.
M-LNG
GEN. STORAGE
SHOPS
LAB EXPANSION
COMMUNICATIONS CENT.
STORAGE
STOR. & SHOP EXP.
MAINTENANCE SHOPS
GROUND FLOOR
NRS & VOL'R L'CKS.
M. EMP. L'CKS
F. HELP L'CKRS
EMPLOYEES LOCKERS

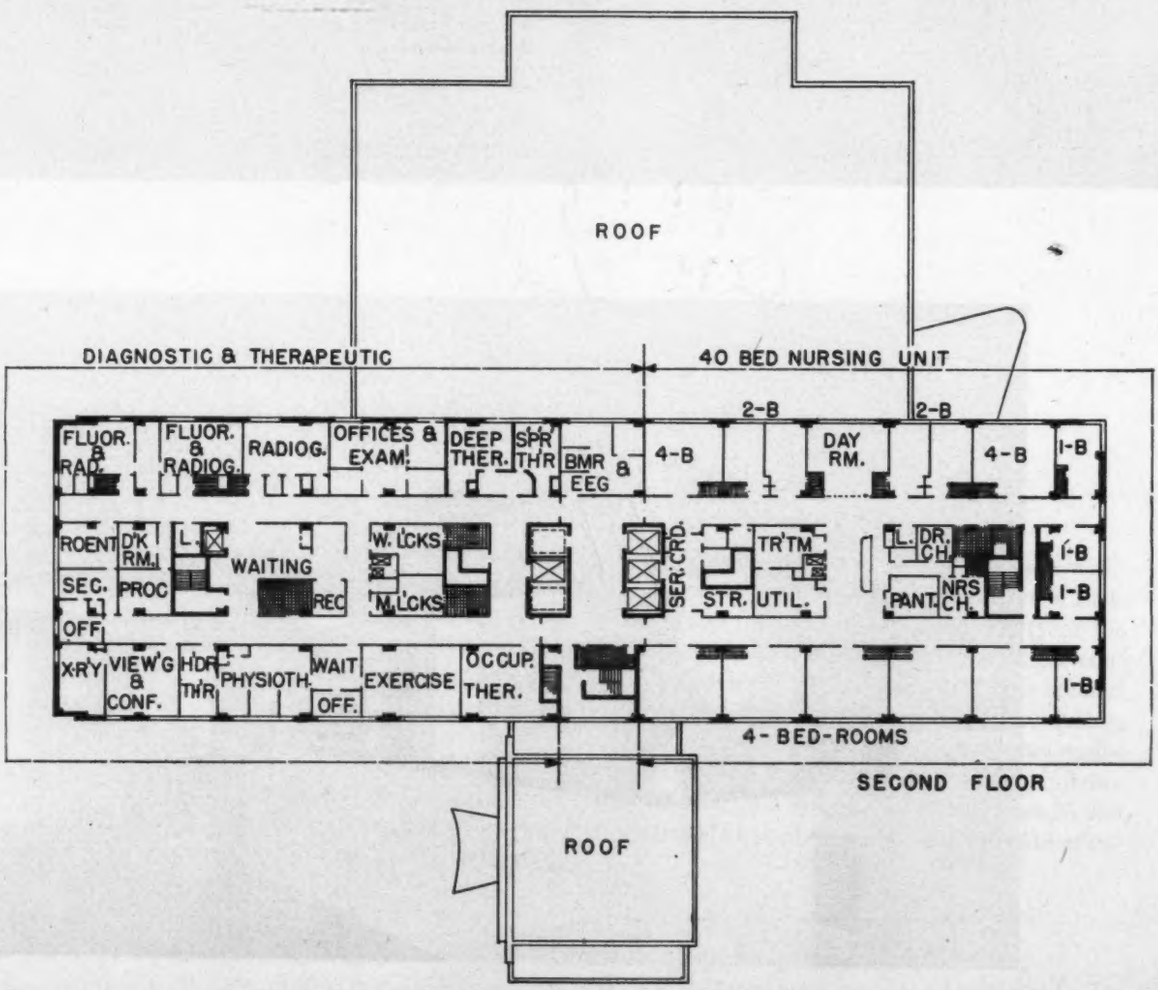




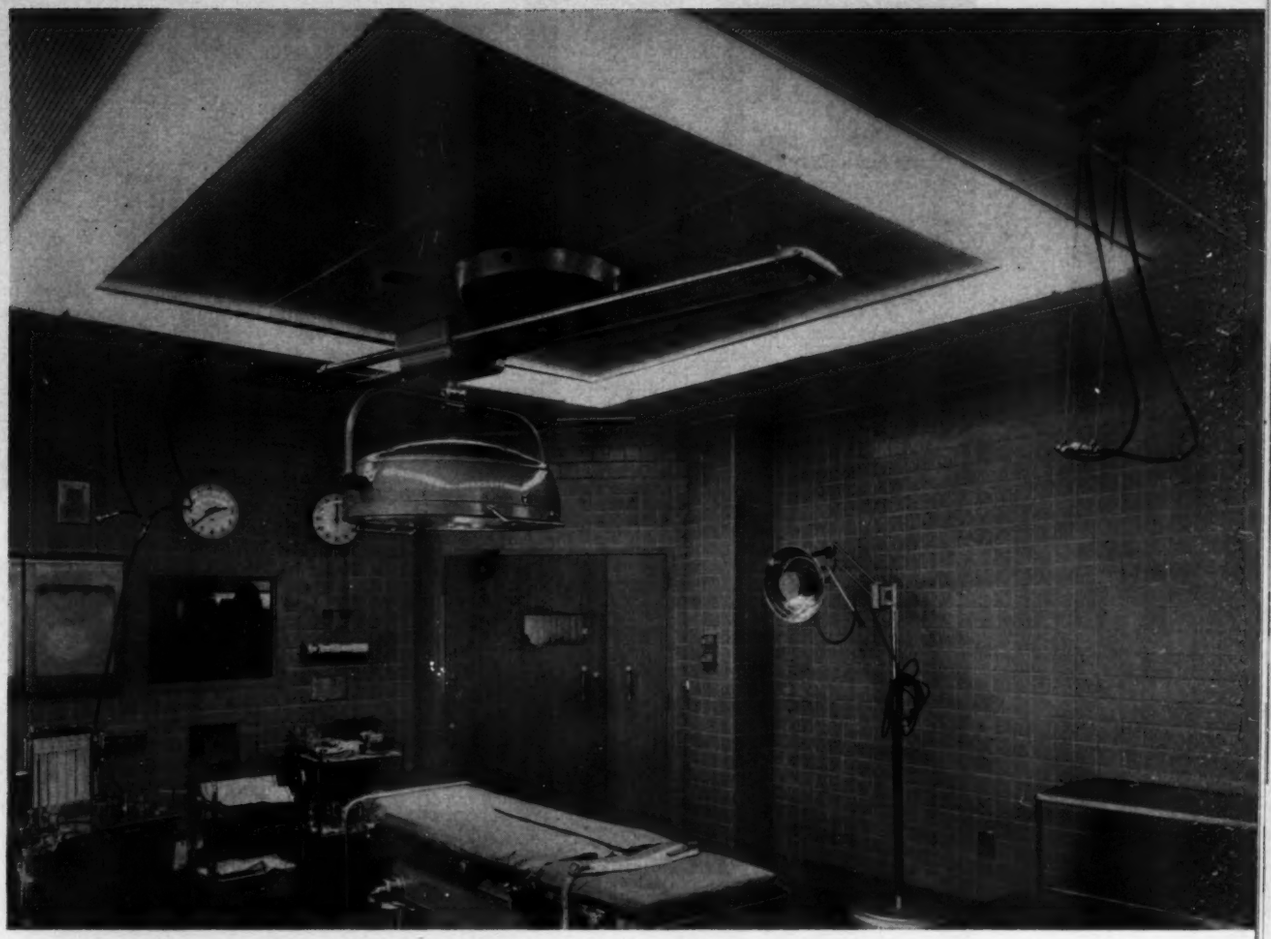
FOURTH & FIFTH FLOORS



THIRD FLOOR



SECOND FLOOR



COST ANALYSIS

PHASE I	Cubage (Cu. Ft.)	Construction Costs (Includ. Fixed Equipt., Arch. & Eng. Fees)	Cost Cu. Ft.	Cost/Bed (Excl. of Bassinets)	Additional Costs	
Main Building (214 beds)	2,287,000				Port. & disp. equipt. & furn.	$490,000
Utility building	83,000				Landscaping, gardening	88,000
					Administration, etc.	43,000
	2,370,000	$4,942,000	$2.08	$23,094		
						$621,000
PHASE II						
Laundry	78,000	192,000	2.45		Port. & disp. equipt. & furn.	$110,000
House staff residence	165,000	206,000	1.25		Miscellaneous costs	20,000
Premature nursery center	83,000	186,000	2.25			
Auditorium	162,000	243,000	1.50			$130,000
	488,000	$ 827,000	$1.70			
TOTAL PHASE I & II	2,858,000	$5,769,000	$2.02	$26,958		$751,000
PHASE III (Estimated)						
4 additional floors (300 beds)	904,000	$1,718,000	$1.90		Port. & disp. equipt. & furn.	$410,000
Expanded O. R.	42,000	105,000	2.50		Miscellaneous costs	75,000
Expanded laboratories, OPD-Diagnostic services	270,000	675,000	2.50			$485,000
Expanded utility building	24,000	48,000	2.00			
Expanded admin. wing	17,000	25,000	1.50			
Expanded house staff resid.	100,000	125,000	1.25			
	1,357,000	$2,696,000	$1.98			
TOTAL PHASE I, II & III	4,215,000 cu. ft.	$8,465,000	$2.01	$16,469		$1,236,000
						8,465,000
					TOTAL PROJECT COST	$9,701,000



Above: cafeteria, first floor, and, below: lounge part of cafeteria



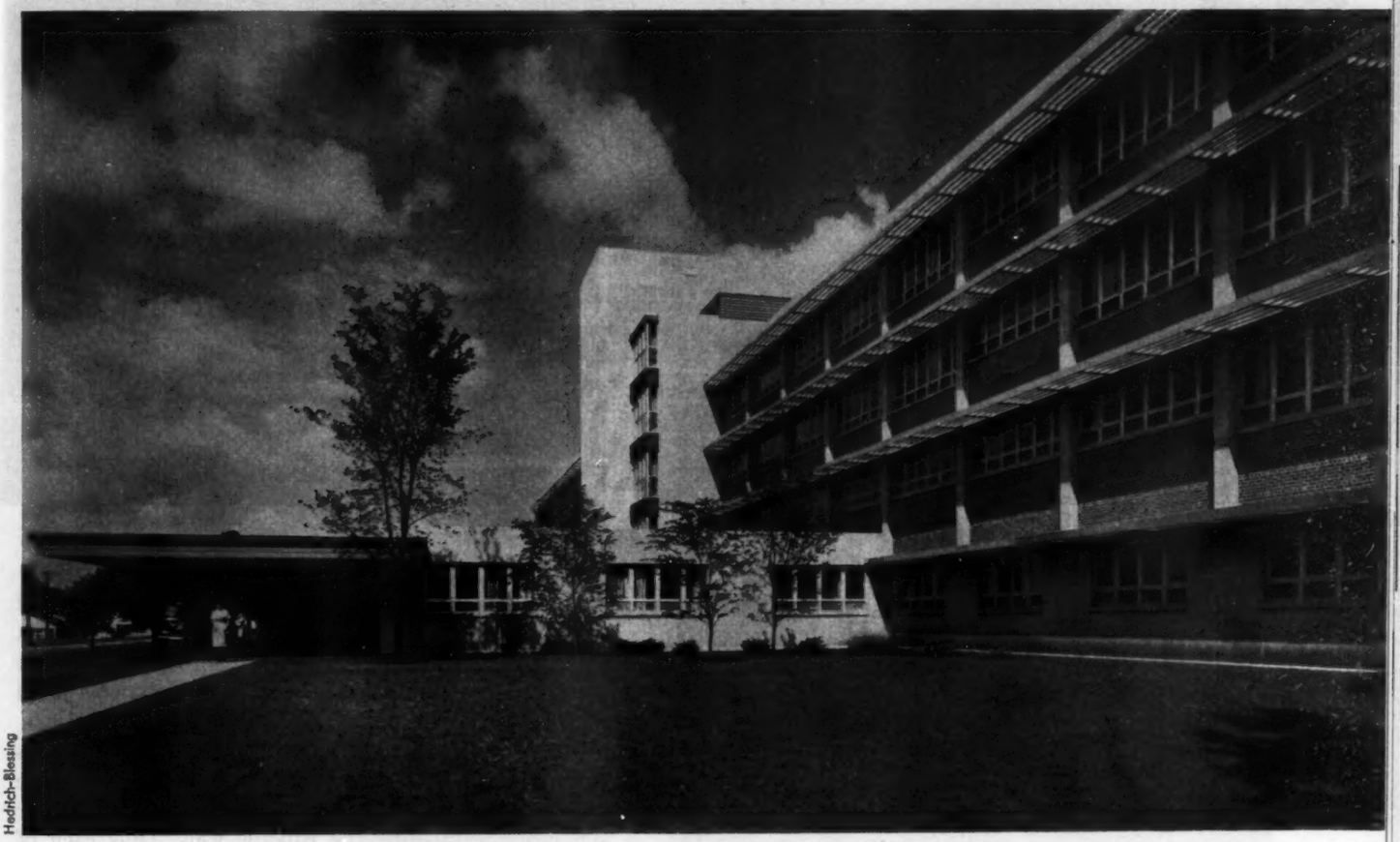
Below: coffee shop, near first floor elevators, serves public and employes



Ben Schnall

200-BED HOSPITAL STUDIED IN ACTUAL USE

***Rockford Memorial Hospital Analyzed after One Year's Operation — A Study Presented in Collaboration with* The Modern Hospital**



Hedrich-Blessing

Rockford Memorial Hospital
Rockford, Illinois

Hubbard & Hyland
Perkins & Will
Associated Architects
and Engineers

Hendrik P. Maas
Hospital Consultant

E. R. Gritschke & Associates
Mechanical Engineers

Paul F. Griffenhagen
Structural Engineer

Review panel, led by Everett W. Jones of* The Modern Hospital, *included representatives of the architects, John L. Brown, director of the hospital, Paul J. Connor, Jr., associate director, George B. Caldwell, administrative resident, and virtually all department heads and supervisors

PLANNING OF THIS HOSPITAL was intensively studied both before it was built and after it was put in operation. This presentation will touch lightly on the preconstruction planning, and treat in more detail the findings of a review committee which studied plan and equipment features as tested in actual operation.

After a full year of operation the review committee held exhaustive interviews with hospital personnel to get criticisms and suggestions. Reports included major and minor items alike: plan features, equipment details, operating methods; altogether a fairly rough test of hospital planning after the fact. There were some nice compliments, some complaints, and a good quotient of education. And a photographer was present to record it visually; these pages are largely devoted to a picture-and-caption report of the investigation.

Original planning began when Hendrik P. Maas was

retained as architectural consultant and the determination was made to start with a fresh site and build a new plant. Two architectural firms teamed together. Hubbard and Hyland had performed many odd tasks in connection with the older buildings, were familiar with the hospital's problems, and Perkins and Will joined up to contribute a fresh approach, "not inhibited by previous tenets." Their work together started with the basic hospital room in the effort to design "a hotel for people who are ill."

After primary research into room units and plan types the architects settled on a high percentage of private rooms, with two-bed rooms arranged with the longer dimension paralleling the window wall. Thus each of the two patients has a like share in the daylight and the view and in the facilities of the room. There is a private toilet for each double room, a connecting one for the single rooms; lavatories are in the rooms.

A T-shaped, four-story building resulted when all elements were accounted for, with each wing or unit offset to avoid transmission of sound and long tunnel-



Hedrich-Blessing

Out-patient waiting room, looking out on entrance court



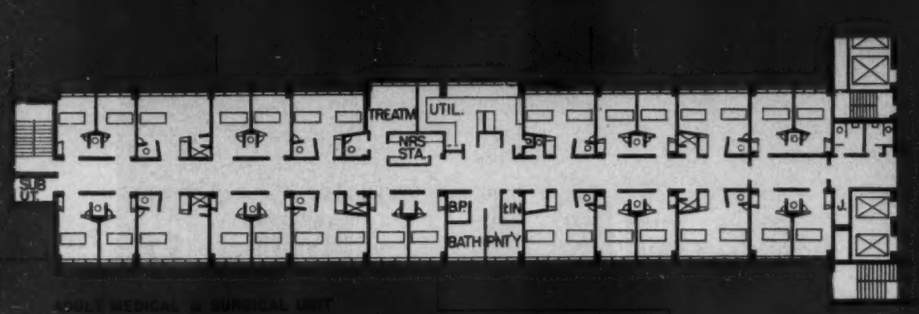


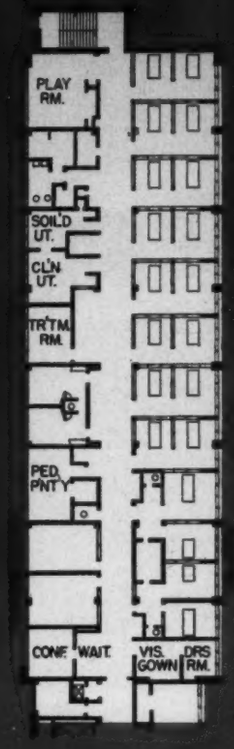
Two views of main floor lobby; gift shop in background, below

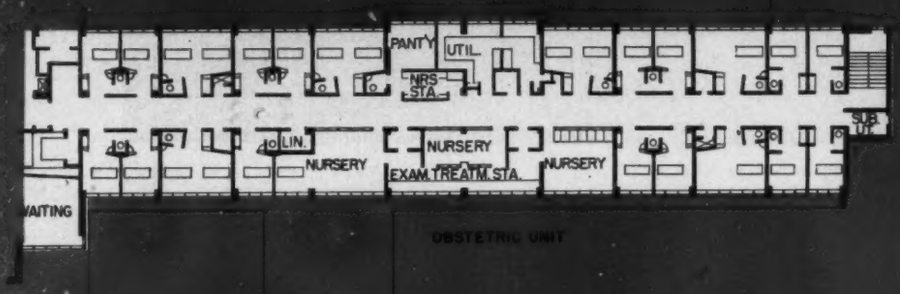


Below: secretary's desk and waiting room on upper floor

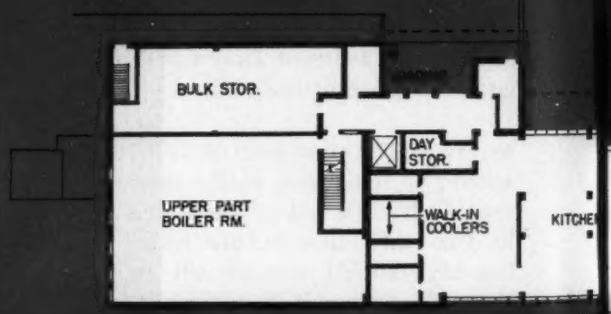






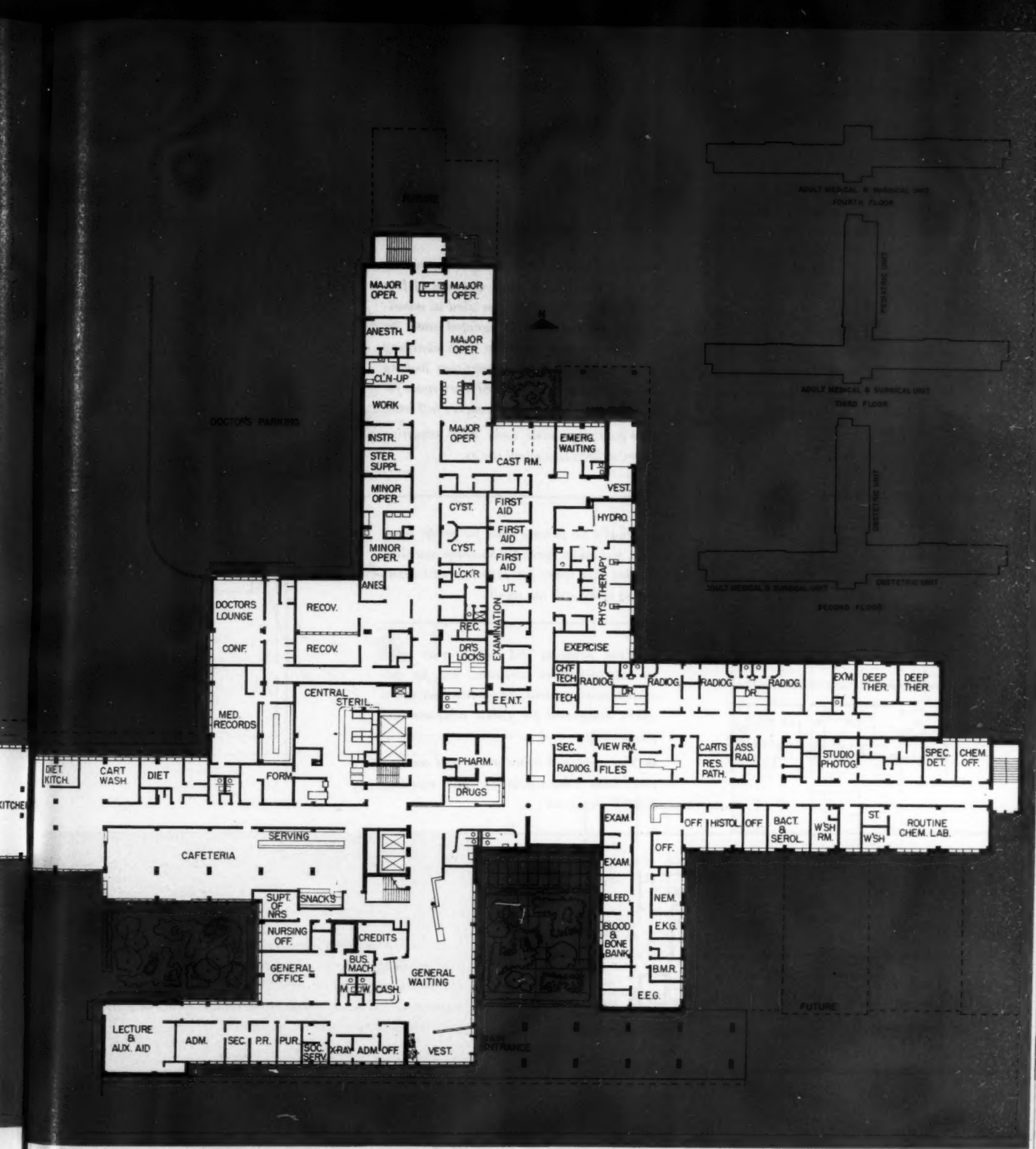






like views down corridors. Two individual nursing units form the top of the T, with other facilities or special nursing units forming the base. Ground floor and basement are of course enlarged to house principal departments, which in the T form are easily expanded should that prove necessary in the future.

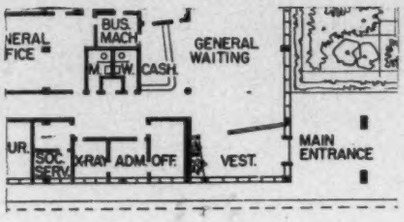
The rather free arrangement of first floor separates departments and their traffic patterns quite well, but does manage to establish relationships between complementary elements. There is an exceptionally large radiology department, with double-corridor scheme to shorten travel distances, located near a large outpatient department and laboratory. The emergency unit has its own entrance, and is located close by the



operating suite; notice that the cast room serves to tie these two departments together. If this large floor begins to look a bit complicated, it will be seen that traffic routes for the public are kept simple and direct. The public also is treated to landscaped court yards which are bound to do much to alleviate any institutional feeling.

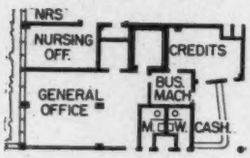
The new hospital has a 15-acre site at the edge of the city. Ultimately the rest of the site will be developed with nurses' residence, nurses' school, medical arts building, and some expansion of the main building.

In the initial phase, at 200 beds, the building was estimated to cost approximately $4,000,000; working out to $20,000 per bed. When the full plan of 268 beds is realized, per bed cost will come down to $16,000.

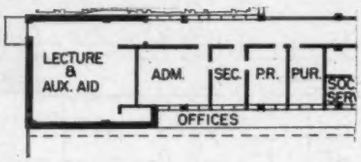


Room for chest X-ray at admittance not used as such — still some question of best procedure. X-ray room now used as admitting office; rooms so designated used for other purposes. X-ray room (now admitting office) should have glass partition looking into waiting area. May need more space for admitting, as hospital approaches full load.

● *Would appreciate room near admitting offices to keep two wheel chairs*

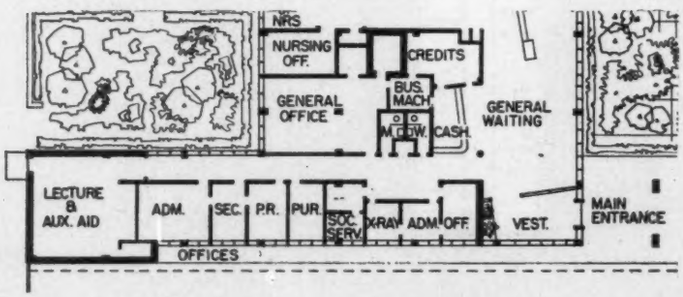


Originally no private office for credit manager; has taken space for business machine. Needed this space for private credit interviews; space still too small

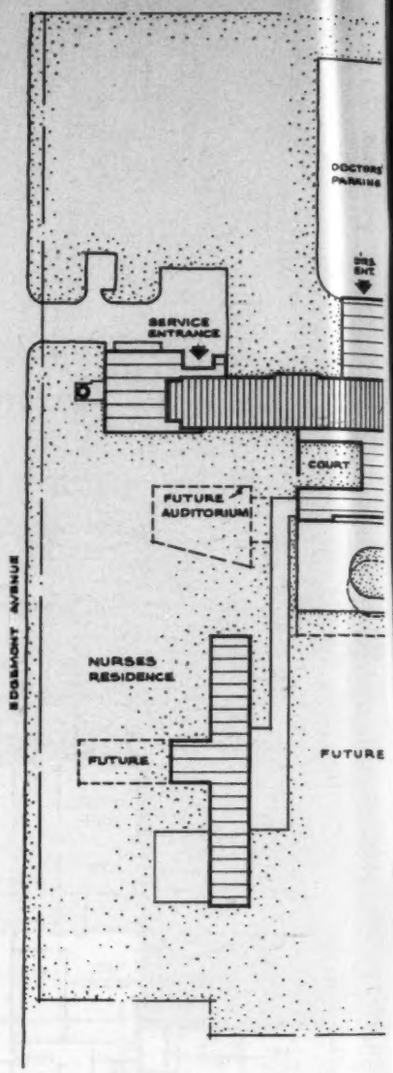


Original program did not provide office for administrative assistant, nor for administrative resident. These two have taken offices designated for public relations and purchasing.

● *The combined board room and meeting room near administrator's office was considered very good*

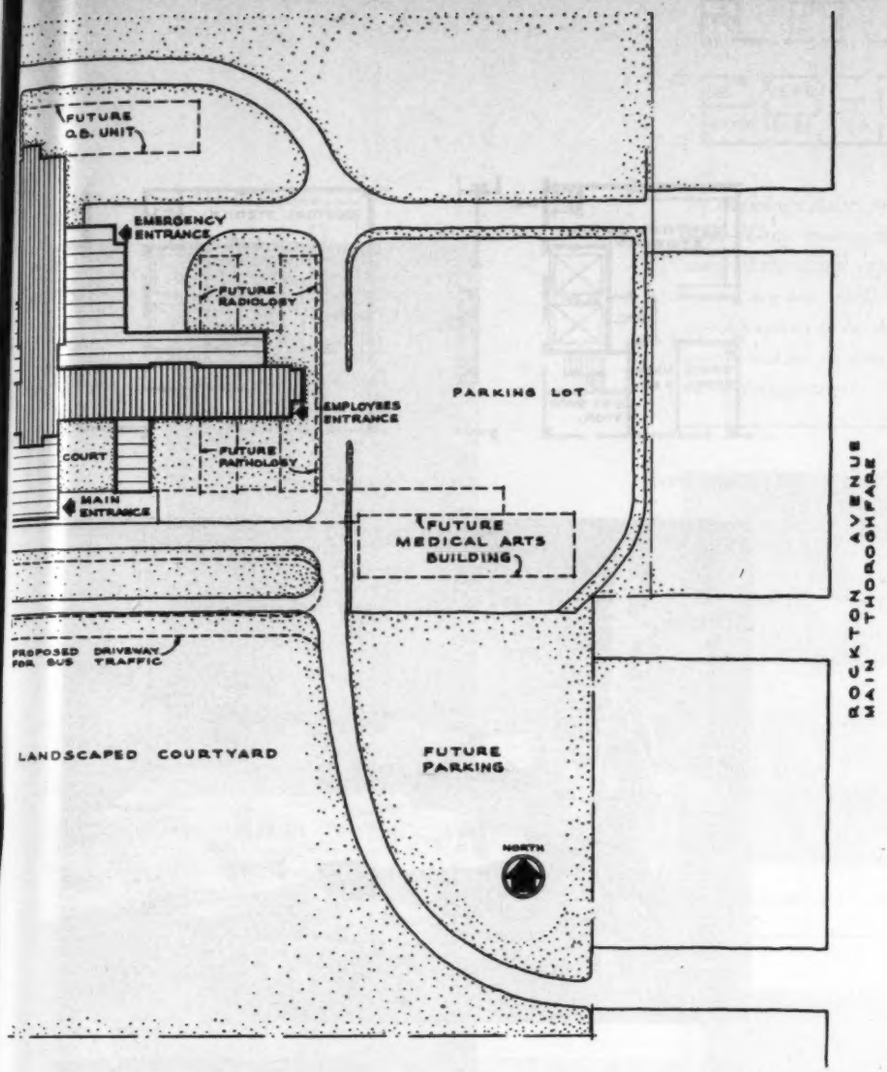


Relationships between admitting office, cashier's counter and cage, credit officer were considered excellent. Close proximity of these is important. Especially good is location of general accounting and business office near cashier's cage and across from administrator and his assistant





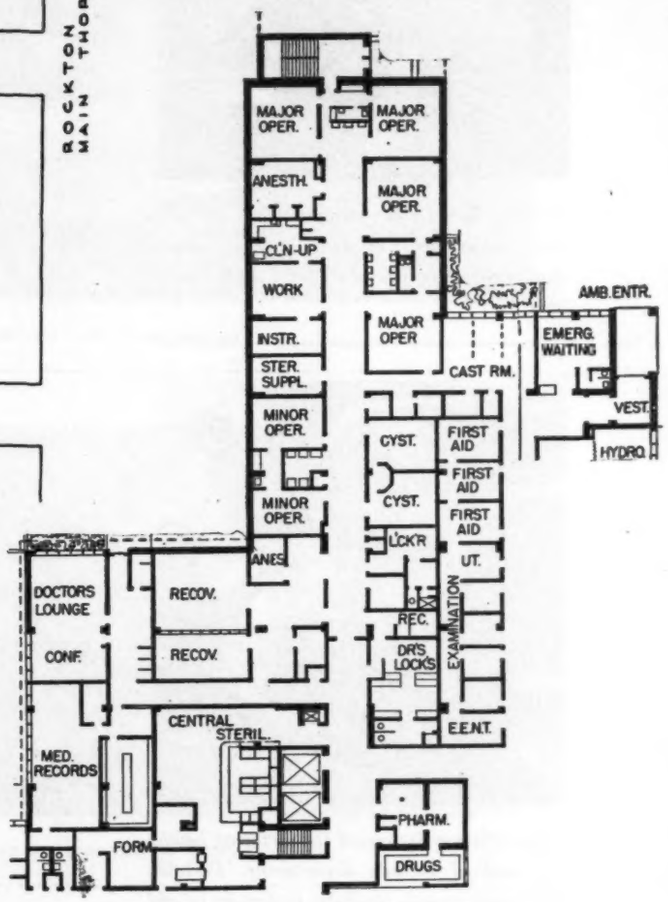
Hedrich-Blessing





Gordon Coster

Main entrance area considered well planned. Good turn-around drive at entrance; good parking areas elsewhere. But later problem was buses coming to door: bus company insisted no parking at all near entrance. Really need space for short parking time for few cars; so suggest turn-around be enlarged. May then need doorman to control this new parking space





Hedrich-Blessing

The chief of surgical department said that the general layout and equipment of operating suite was excellent.

- *Appreciation expressed for ten-foot corridors in operating suite: if occasionally patients need be left in corridor on stretcher, no congestion results.*
- *Some question of sufficient miscellaneous storage space in operating rooms: it would be nice to have separate room for equipment storage.*
- *Would also appreciate, separate linen chute for laundry from the operating rooms.*
- *Doors should be installed to close off recovery room from operating corridor: some patients scream when coming out of anesthesia.*
- *There was criticism of location of air intake immediately over operating table.*
- *Room intended for anesthesia induction not used for that purpose, but proves ideal for storage of anesthesia equipment.*
- *General area around emergency entrance, cast room, operating suite considered very good. Main emergency room might have been a bit larger, and needs telephone.*



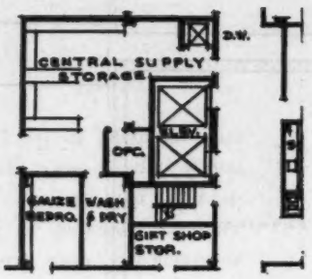
Nurses' locker room in operating area was not intended as a smoking or lounge room, but is so used. Should be twice as large for this use.



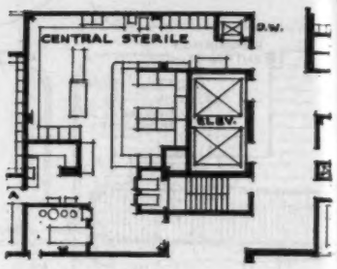
Gordon Coster

Appreciation expressed for dictating booths in medical records department. Portable file keeps records available to doctors at odd hours.

● *Medical records librarian needs a private office; five clerks work here.*



Lower level

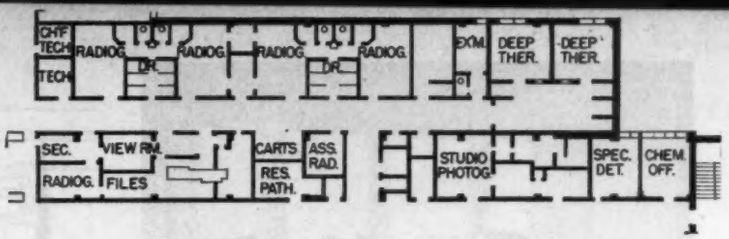


Upper level





Two-level operation (ground and first floor) of central sterile supply department is most unusual. At this date nobody was sure how it came about. No real study of its feasibility yet made, but is yet to come. Meanwhile only one level now used, and certain troubles have arisen: No "retail storage area" to store few cases of materials right in room. Dumbwaiter presently overloaded, and is not well located. Inadequate loading space at the large sterilizer; bundle wrapping area too far from sterilizers. Need an office area for the supervisor. A sterilizer manufacturer is now studying plans for this area, hoping for a new layout which might yield a more efficient operation.



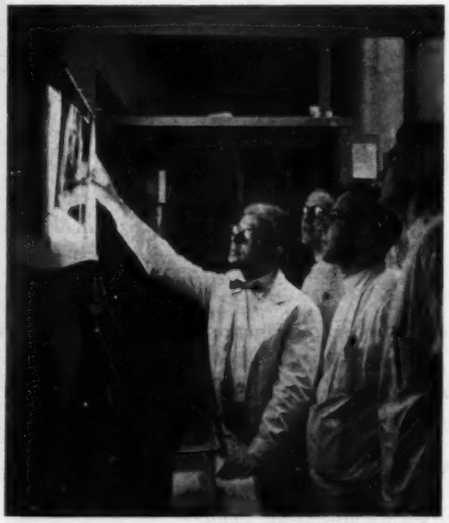
In radiology suite, technicians would appreciate a sub-corridor behind X-ray rooms, as in out-patient department. Here there were some of the usual expressions by the hospital personnel that certain rooms are too small, the toilet room doors are too confined. Most serious seems to be that one or two of the radioscopic rooms are too small, and the stretcher parking area too tight. They would have liked more storage area.



Maybe a sliding door?



Head radioscopic room is too narrow



Designed for one — four's a crowd; viewing area in X-ray film developing area. Sometimes several want a quick look at a wet plate. Also, a small dark room for individual processing would be a nice idea.



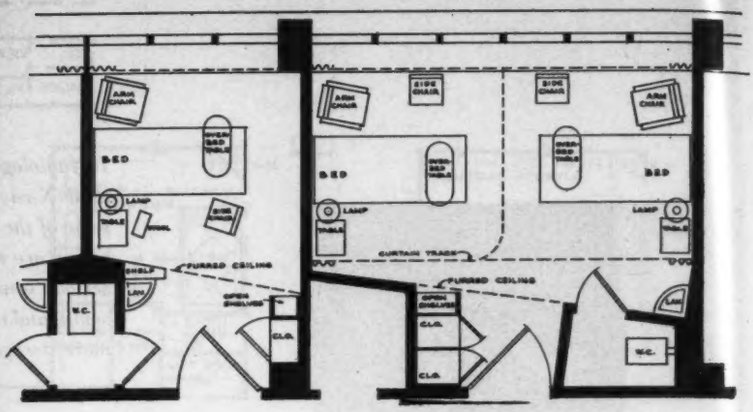
More parking space needed in X-ray corridor

Everybody concerned felt the cast room "was perfect"





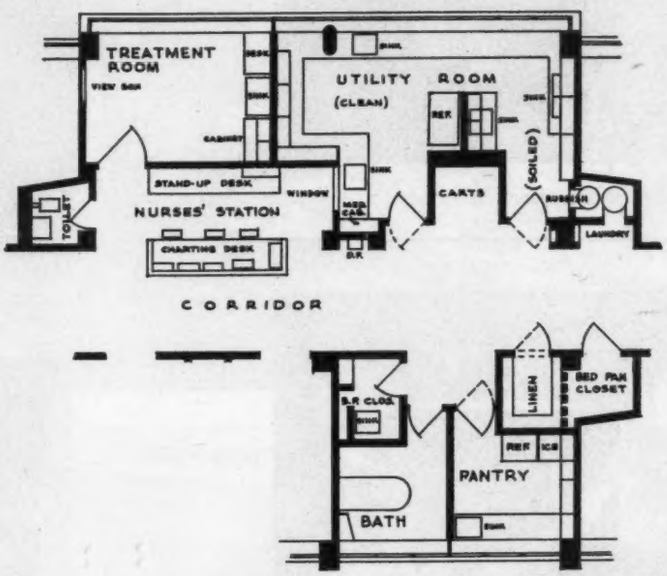
Hedrich-Blessing



How did patients like the large window area? Reactions were mixed: 70 per cent liked them; 30 per cent said the light hurt their eyes



Gordon Coster



Location of medicine cabinet over sink board in nurses station utility room is awkward — also needs better light.

● *A change in the architects' plans made a problem about bed pans. It was decided during construction not to include bed pan washing equipment in patients' toilets as planned; thus bed pan closets were afterthought, are poorly located and take space from linen room where space is at a premium*

If the bedrooms were just a little larger, it would be easier to move patient's bed out into corridor, or to transfer patient from bed to stretcher-bed. Nurses have to move other furniture around to accomplish either method of moving patient

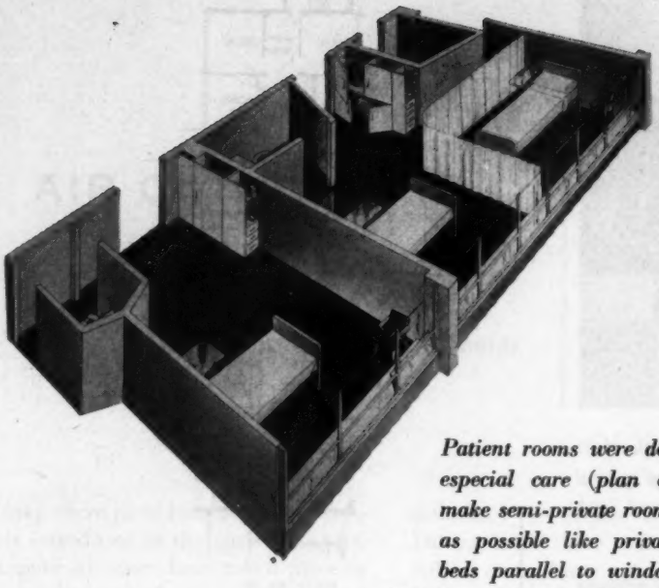


Gordon Coster

Nurses are always too small



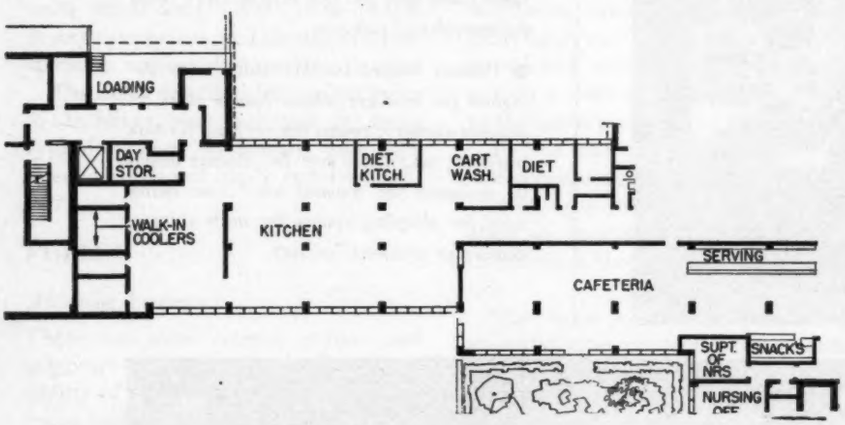
Gordon Coster



Patient rooms were designed with especial care (plan opposite) to make semi-private rooms as nearly as possible like private rooms — beds parallel to window, curtains for maximum privacy. Angled walls add some space to room, also have some acoustical value.



Hedrich-Blessing





Gordon Coster

General arrangement of cafeteria and snack bar considered very good. Snack bar appreciated — might be larger, also needs more storage space

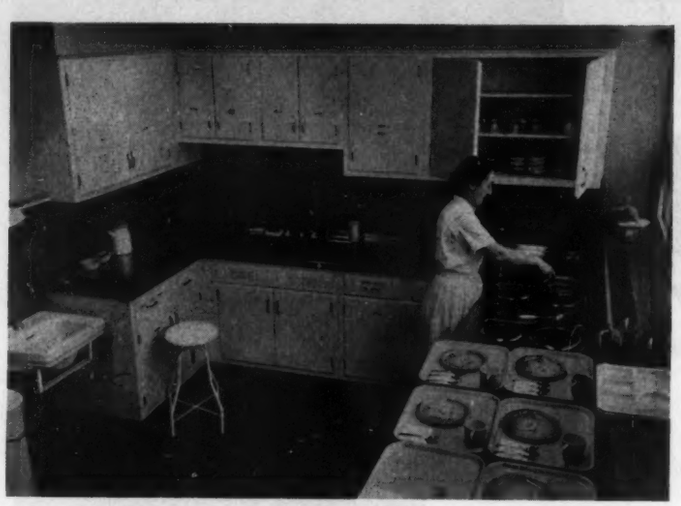
Kitchen employees think everything here is well laid out. Refrigerator boxes are well located for deliveries, as are bulk food storage and ice boxes. The assembly line for hot-pack type of meal service is working well. Patients gave their praise for the food service, and that is a rugged test in a hospital



Gordon Coster



Gordon Coster

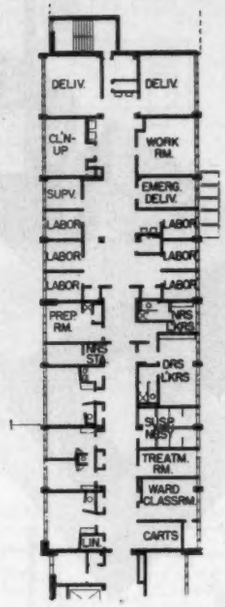


Gordon Coster

Nurses in the pediatrics department were well pleased with their suite and arrangements. They were especially pleased with the special diet kitchens, where all meals for youngsters are prepared, and with the pediatrics play room



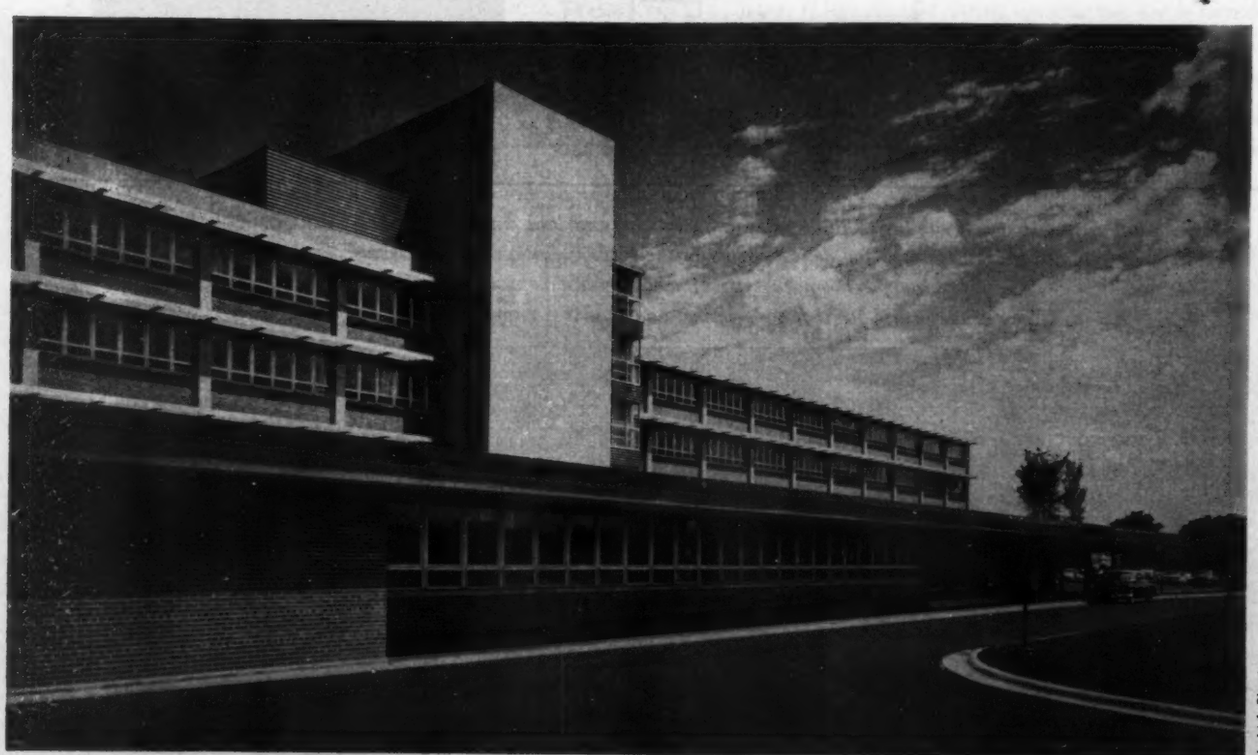
Gordon Coster



OBSTETRIC UNIT

Standard hospital doors in obstetrical department proved a bit narrow for moving labor room beds in and out, for here the labor room beds go right into delivery room for transfer of patients.

● *Patient rooms in this suite were designed for mothers whose babies were in suspect nursery; rooms not yet used for this purpose, might not ever be. Rooms might be assigned for normal use. Now being used for sleeping rooms for male nurses, doctors or residents on call*



Hedrich-Blessing

HEATING AIR CONDITIONING PLUMBING

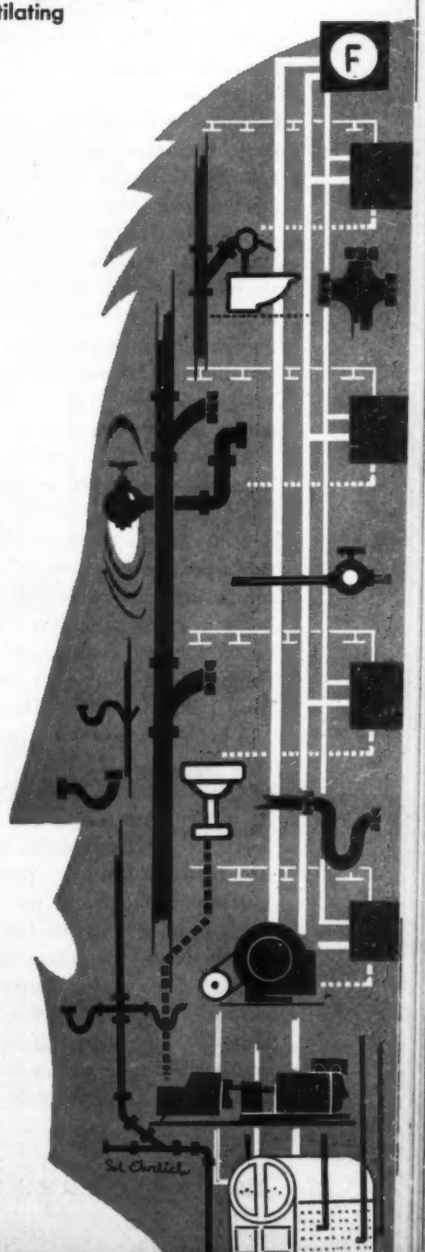
Trends and new developments

With building design being so complex, it's no wonder that the architect or engineer finds it difficult to recall, say, "a new type heating system" that would be "ideal for a certain job." Serving somewhat as a reminder, this two-part article covers a large number of items introduced in the last two years

By Nathan N. Wolpert

Associate Editor

Air Conditioning, Heating and Ventilating



While there have been some new concepts introduced in the past two years, the main advances have taken place in the development of new equipment and refinement of older designs. In houses, for example, heating units are still more compact and flexible; air conditioning is more practical because of packaged units, whose components can be located in convenient spots, and because of inconspicuous, smaller water-saving devices.

The items described for various types of buildings were selected as being typical of new equipment, and such selection does not imply endorsement.

FUELS

Atomic Energy

There are some science writers and engineers who have mentioned the possibility of atomic energy as a means for space heating in addition to its use for generation of power. How much speculative thinking this represents, no one knows. It is known, however, that waste effluent heat from the operation of a reactor can be recovered by means of a system of heat exchangers. At the Hanford Atomic Products Operation, an estimate has been made that for the entire operation, an excess of 3 million cu ft per minute of outside air is required to dilute air in the plant to reduce the possibility of danger from radioactive material. To keep this air properly heated during an entire heating season would require 4,300,000 gallons of oil.

Gas

Natural gas products has grown from 2.5 trillion cu ft of gas in 1937 to an estimated 9 trillion cu ft in 1952. During 1953, there were discovered 7.1 trillion cu ft of new natural gas reserves. It was reported that in the Appalachian area the demand for gas increased 50 per cent during 35 per cent of the year due to winter temperatures. Cross country pipe lines carrying gas from the Southwest cannot be operated economically with such fluctuating loads. The economical solution is to use underground storage areas as close as possible to the market areas.

By the end of 1953 there were 167 underground storage pools operating in 17 states compared with 50 pools operating in 11 states in 1944, according to figures of the American Gas Association.

This same association reports that the anticipated residential space heating load using gas as the fuel will, in 1957, exceed that of 1953 by 53 per cent. It will represent nearly one-fourth of the total annual demand of all customers in the industry in 1957. About 1.2 million additional families will heat with gas during each of the next 3 years.

Synthesis Gas

A process has been developed whereby pulverized coal is converted to synthesis gas in one step. The gas is a mixture of carbon monoxide and hydrogen. The new process produces this gas cheaper than by the old method and it also permits the use of a lower grade coal. Pulverized coal, oxygen and superheated steam are sprayed through a burner nozzle into a refractory lined furnace. Gases rise and are drawn off for further processing into chemicals. Two small plants, using this process, have been successfully operated.

HEATING

Although much has been written about air conditioning, one must not slight heating, the one service that makes homes and buildings livable in most parts of the United States.

A new idea in heating a large number of rooms is the turbine driven heating system. Steam generated by a low pressure boiler is conducted through small copper tubes to compact individual room units which are normally recessed into the outer wall.

The heater consists of a copper heat exchanger, a steam-driven fan for circulating room air through the unit, an air filter and a self-contained thermostat. The non-electric thermostat modulates the flow of heat, controlling both steam supply and fan speed. Units come in three sizes with heat outputs of 6000, 12,000 and 18,000 Btu per hr.

An oil-fired duct heater is available for use with central air conditioning systems serving supermarkets, stores and other commercial applications. The heater has air intake louvers which balance the distribution of air over the heat exchanger and give correct air velocity. Units are available in 200,000, 300,000 and 400,000 Btu per hr output.

Also for the commercial field is a steel boiler, split into sections, so that the packaged parts can be taken through undersized doors and assembled to form two watertight sections by bolting the two halves together. It is available in 12 sizes from 876,000 to 5,100,000 Btu per hr, and can be either oil- or gas-fired.

A number of interesting units have been designed for the small or basmentless type house. One type, for use in a utility room or closet, has a burner that operates within an insulating brick combustion chamber. Insulating fire brick heats to a red glow in a few seconds to provide clean combustion. This style furnace is available in six capacities from 75,000 to 144,000 Btu per hr.

A hot water steel boiler has a maximum gross output of 115,500 Btu per hr when oil- or gas-fired. The round boiler is 24 in. in diameter and stands a little over 5 ft high. Spinner blades break up the hot core of gases to provide greater heating efficiency. A unit rated at 3 gpm supplies domestic hot water without the need of a storage tank.

One space-saving furnace is placed within masonry walls of a 25-in. square chimney. The rustproof furnace, of the counterflow type with a heat exchanger about 9 ft high, is made of 302–18–8 stainless steel. An additional 2500 sq in. of radiation surface is provided by exhaust stacks within the chimney heat exchanger. If the chimney is centrally placed, as many as three rooms can be heated by grilles in the chimney. A gun type oil burner is provided although it is expected that a gas-fired unit will be available soon.

Gas-fired Units

In looking over the gas-fired field, let us first consider the kitchen. A counter height unit for kitchen installation in the small house with one bathroom has a gas input of 115,000 Btu per hr and it is rated at 440 sq ft of water radiation.

For use in small, basementless houses or individual apartments, there is a hot water, cast-iron, wet base, gas-fired boiler having self-cleaning tube construction. Because of the wet base construction, boilers can be installed directly on combustible floors. Sizes are 87,000, 115,000 and 150,000 Btu per hr.

Steam Generators

During the past two years, there has been added interest in the packaged steam generator — a unit which comes self-contained and completely wired.

An extra small steam generator has been designed which requires an installation space of only 9½ ft long, 6 ft wide and 6 ft 8 in. high. It is a 250 hp fire tube steam generator which burns either oil or gas and is designed for operation at 15 to 200 psi pressure. Under normal operating conditions, it delivers 6500 lb of steam per hr. This boiler can be operated from 30 to 100 per cent capacity.

Baseboard Heating

For the baseboard hot water system, there are two new types of equipment. One model has a heating element 2 by 2¾ in. in size and this unit projects 2¾ in. from the wall; the height to the top of the molding is 8¾ in. Where larger capacity is desired, there is a unit with heating elements that measure 2¾ by 4 in., projecting 3⅜ in. from the wall; the distance from floor to top of molding is 11⅞ in. The finned heating elements come in lengths from 1 to 6 ft. An enclosure consisting of back, front bracket and trim is 8 ft long.

For fin tube radiation, there is a hanger with a sliding cradle which allows expansion and contraction of the heating element. This cradle permits a maximum ¾ in. movement of the element.

Panel Heating, Cooling

A new idea in panel heating and cooling, using air as the cooling and heating medium, employs a double deck concrete floor construction. There are two thin concrete floors — the top slab forming the flooring surface. Thin metal forms which cover the entire floor, separate the two slab layers. Warm air passes through the floor system and is released through continuous baseboard registers to give both radiant and convection heating. This system has also been used for floor panel cooling in California. Controls provide single or multi-zone regulation. Because of the thin concrete slab, there is little heat lag.

Unit Ventilators

A new unit ventilator has been designed for school heating. It is mounted on the outside wall of the classroom and ducts run along this outside wall under the windows, at about sill height. Air travels along the ducts and blocks drafts from cold surfaces besides distributing heat and ventilation air to all parts of the room. Air is drawn into the unit from the room at floor level, or from the outside if ventilation is required. Unit ventilators are available with capacities ranging from 500 to 1250 cfm in floor type, semi-recessed and recessed models. Duct sections come in 5 ft lengths.

Heat Recovery

To be used with the larger heating installations, there is a heat recovery unit which the makers claim can recover 90 per cent of the heat in an exhaust air stream. The unit, which is like a wheel, is placed in the line of the air exhaust. Exhaust air is blown through the upper half of the unit and is then discharged outside the building. While exhaust passes through, metal wool in the unit extracts heat from it. At the same time, fresh air is blown through the bottom half and the wheel revolves slowly. Heat is picked up by the incoming air stream and is put to good use. All units are 26 in. deep and the size varies from 53 to 128 in. square for the five models which have capacities from 3000 to 20,000 cfm.

Vents

For gas-fired recessed wall heaters there is an asbestos-cement vent, approved by the Underwriters' Laboratories, which has an oval backbone of asbestos-cement pipe. Around this is a jacket of lightweight aluminum. The

two are separated the full length of the vent by spacers. This vent will handle flue gas temperature up to 550 F. Heat stays inside the vent and the outside jacket is cool. Another type, similar in design, uses aluminum for the inner pipe and galvanized iron for the outer pipe.

Electric Heating

Unless a house is located in an area where electric power is cheap, complete heating by electricity is too costly, although simple and convenient. Electric heating was installed initially in a number of houses in the Detroit area. Nearly all have been changed to more conventional heating because of the high cost.

In general, this form of heating is practical where there is a remote room in a house that has to be heated, where supplemental heating is required for a room, or perhaps where only a bathroom is heated by electricity.

Radiant heat can be supplied by an electric glass panel installed on the ceiling. The panel is insulated and is backed with reflective aluminum so that all of the heat is beamed downward into the room. Panels are installed in the room ceiling along the outside perimeter and are practically invisible. Each panel has a capacity of 500 watts or 1707 Btu per hr.

An electric cable designed for use in ceilings of homes is waterproof, noncorrosive and well insulated. A special feature of the cable is the seal said to eliminate streaks on the ceiling. When installed, the cable is stapled to the ceiling lath and then given several coats of plaster.

A special electrical ceiling heater has been designed for use in bathrooms. It is recessed between ceiling joists and is prewired to a built-in pull box. It directs heat from the ceiling to the floor and is available in 1- and 3-lamp units. No special circuiting is required.

Heaters for Construction Work

A number of small portable heaters, either oil or gas-fired, are produced for the comfort of men working on outdoor construction jobs, for drying out basements, and for heating warehouses.

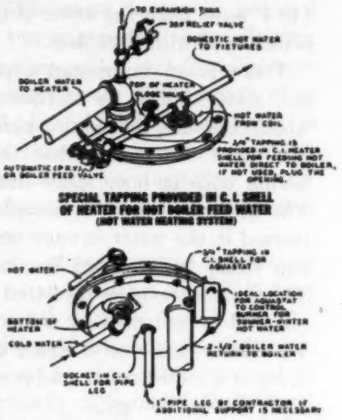
One unit using LP gas is designed to give a heat output of 151,200 Btu per hr and consumes 7 lb of gas per hr. It comes in two models: One is 22 in. high, 19 in. wide and weighs 13 lb; the other is 20 in. high, 19 in. wide and weighs 14 lb (tank top model).



Iron Fireman Mfg. Co.

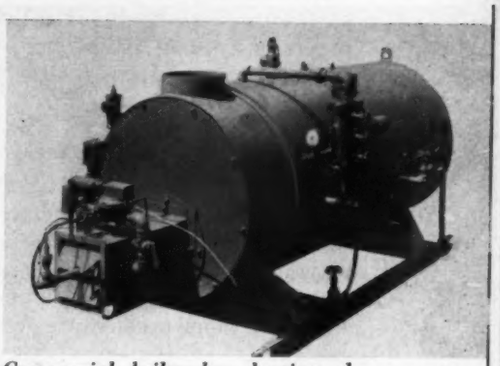


Steam serves as heating medium and drives fan as well in room units



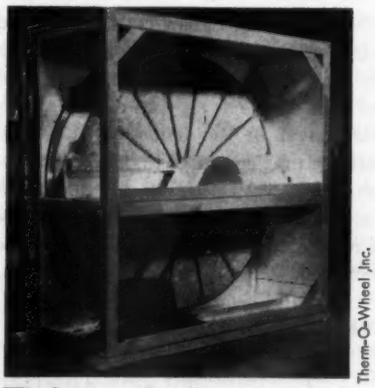
Lindy Heaters, Inc.

Tankless water heater comes in 4½ and 6½ gpm capacities



Mund Boilers, Inc.

Commercial boiler has heating element immersed in storage tank



Therm-O-Wheel Inc.

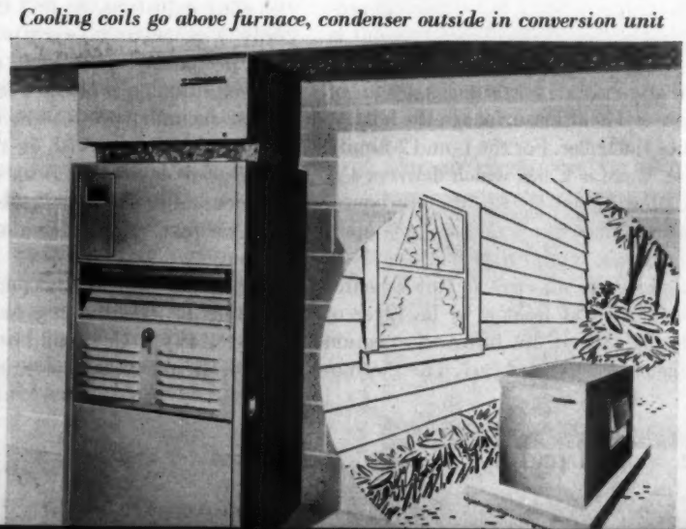
Wheel recovers heat from air



Moretemp Products Corp.

Furnace fits inside a 25-in. sq chimney

Cooling coils go above furnace, condenser outside in conversion unit



Typhoon Air Conditioning Co., Inc.

There is a self-contained, oil-fired portable heater mounted on wheels so that it can be moved easily. It burns No. 1 oil or kerosene and can be plugged into a 110-volt outlet. A blower on top of the heater forces air over a heat exchanger and out through outlets.

A portable space heater for use where electrical power is not available has a gasoline engine to power the oil burner and axial blower. A line from an oil drum feeds fuel to the burner. A standard make gasoline engine is used, and the entire unit is mounted on wheels. This heater is available in two sizes — 20,000 and 400,000 Btu per hr.

Service Hot Water Heaters

Up to now we have considered only space heating. Because of the growing demand for automatic washing appliances, manufacturers have given special attention to the design of small, efficient heaters for supplying service or domestic hot water.

Starting first with the small heater, there is an 11 gal., gas-fired water model designed for cottages, motels and garages. An electric ignition system eliminates the need for a constant-burning pilot light. It can be installed either within a building or outside. Exterior installation, with controls and venting systems outside, make it impossible for gas or fumes to get inside. Glass fiber insulation completely surrounds the inner tank and keeps the water hot long after the thermostat cuts off the heater.

Where space is a factor, a gas-fired water heater is available for installation in closets or similar locations. It comes in a 40 gal. size which has an overall height of 42 in., and a 30 gal. size which has an overall height of 39 in. Diameter is 26½ in. for both sizes.

For the larger house with from one to six bathrooms, there is a tankless water heater which looks like a thin section of a cylinder. The cast iron shell has ¾ in. tappings for a hot water connection to the feed boiler. Since the unit is self-venting, there is no worry about air binding. There is a concentration of copper coil heating surface in the hottest part of the boiler. For the 1- and 2-family house, there is a size which delivers 4½ gpm, and for the 2- to 6-family house, there is a unit which delivers 6½ gpm.

Designed specifically for the New England area, an electric water heater is lined with at least a ⅜ in. layer of hydraulic stone to insure protection against corrosion and rust. The thermostat permits delivery of water from 120 to 170 F. The unit has direct immersion heating elements and fiberglass insulation to prevent heat loss. Both inlet and outlet connections are accessible for standard ¾ in. connections. It comes in 50, 66 and 80 gal. sizes.

For commercial kitchens which require 180 F water for dishwashers, there is a storage type water heater which can supply water of that temperature from one outlet and 140 F from another. Water temperature in the tank and at the top outlet is automatically maintained at 180 F. Tempered water at 140 F flows from the lower outlet. Unit is insulated with fiberglass.

There is an immersion type 2-pass hot water boiler for commercial use which combines the heating element and hot water storage so that there is a saving both in floor space and piping. The heating element is completely immersed in the water storage tank and it can easily be removed for inspection. The tank is fiberglass-insulated throughout and is protected by a metal cover. The boiler comes with either gas or oil firing or a combination, and in capacities from 250 to 5000 gph.

Tankless water heaters, for users of large amounts of hot service water, such as office buildings, schools and apartment houses, come either oil- or gas-fired. Submerged twin coils, connected together, are placed horizontal across the top section of the heater. One of the coils serves as a preheater. Water is maintained in the boiler at 227 F so that the unit can meet high, instantaneous demands. Both 140 F and 180 F water can be delivered from the same heater. Capacities range from 300 to 5000 gph.

COOLING

Air Conditioning

Air conditioning for comfort has become one of this country's most rapid-growing industries. At first in residences only window units were used, cooling one or more bedrooms at night. Now air conditioning is planned for the entire house including the basement. For one thing, this brings with it the problem of special devices such as evaporative condensers or air cooled coils to prevent the waste of large amounts of cooling water.

As far as industry is concerned, residential air conditioning has turned it topsy-turvy. Air conditioning manufacturers are selling heating units, and companies who for years made only heating systems, have had to develop cooling systems. The objective is to have a single unit which will cool the house in summer and heat it in winter.

In the early days of year-round air conditioning, it was common to assemble the compressor unit in a self-contained package and install it alongside of the warm air furnace. The cooling unit used the same air distribution system installed for forced warm air.

Now, though, there is interest in an air conditioning system using water chillers. This differs from the conditioned air system in that heating and cooling is through pipes or tubes instead of ducts. Hot water is distributed from a central boiler through pipes to room units for heating in winter; chilled water from a central cooling unit runs through the same pipes for cooling in summer. Packaged chillers are described later.

For the home with a forced warm air system which is to be changed to year-round air conditioning, there is a conversion unit which consists of two parts. The cooling coil is normally installed in the ductwork at the top of the furnace. The air cooled condensing unit which can be placed anywhere outside of the living area, consists of a refrigeration compressor and an air cooled condenser which eliminates the need for an evaporative condenser and cooling water. The fan opening in the condensing unit has a wire grille for protection.

One air conditioner which comes in 2- and 3-hp sizes for cooling the average size house, is available as a self-contained unit or as a two-part system in which the refrigeration section is installed outside the house and cooling coils are placed in the main duct leading from the furnace. The two parts are connected by copper tubing. Both types are air cooled.

New in the 3-hp size are two different systems, both designed for residential cooling. For houses with 1400 to 2100 sq ft, operating under average climatic conditions, there is an air cooled 3-hp unit consisting of two cooling and dehumidifying systems. Under most conditions, operation of one unit is sufficient, and the other unit is held in reserve. The conditioner is installed in the attic and supplies cooled air to a dropped ceiling or plenum in the central hall.

Another 3-hp unit has three sections. The base unit which contains the cooling section is hermetically sealed and is mounted in a cabinet. In the second section, air passes over a 3-row aluminum

fin cooling unit and is discharged through the top of the unit. The third component is a blower, where required, mounted above the cooling section. A grille is placed above the blower for ductless installations and at an angle for maximum air distribution. The complete unit is 72 in. high.

One design employs a built-in evaporative condenser in the packaged unit. The section containing the cooling coil, blower and filter is detachable so that the packaged evaporative condenser may be installed in an outside garage or attic. The cooling coil can be suspended in the regular duct. While developed primarily for houses, the conditioner can also be used for commercial applications. Sizes available are 2, 3, 5 and 7½ tons.

There is a low priced 2-ton cooling system 62 in. high which occupies a floor space of only 37 in. square. The unit can be installed in a closet with an access door in front. Where municipal regulations dictate the use of cooling water, an air cooled condensing attachment is available. Return air can be brought to back, bottom or side of unit.

A split system provides forced hot water heat in winter and air conditioning in summer for residences and commercial applications. From a central unit, hot water is supplied to room conditioners in winter and cooled water in summer. Conditioners contain a finned tube heat exchanger, blower, filter and grilles. For chilling, refrigeration equipment or well water may be used. Domestic units have a heating capacity of 7200 Btu per hr using 180 F water; cooling capacity is 3750 Btu with 40 F inlet water flowing 1½ gpm. Fan operation is automatic. On the cooling cycle, a thermostat controls the booster and chiller starter in parallel circuits. The rate of air supply may be adjusted manually at each unit.

Packaged Water Chillers

One unit which is available in sizes from 2 to 15 hp supplies chilled water for air conditioning systems or drinking water. Chillers are furnished completely assembled and only require power and water connections. The circulating pump is of the non-overloading type with mechanical seal to eliminate danger of leaks. The 10- and 15-hp models have two separate refrigeration systems with thermostatic controls. When required, this permits operation at 50 per cent of capacity.

There is a chilled water unit for air conditioning system in 10- to 50-ton sizes. It comes completely assembled. A multi-step reciprocating compressor automatically adjusts power and water consumption to the demand for cooling.

Condenser Water Coolers

Because of municipal regulations in some areas which require the use of water saving devices such as evaporative condensers, a number of such units have been developed for residences and small size commercial installations.

One system designed for use with a 3-hp packaged air conditioner provides a steady flow of cooled condensing water. The warm water is pumped through two automobile-type radiators.

Another air cooled unit for residences can be placed in an attic, garage or in the backyard. Condenser package is only 2 ft high, 3 ft deep and 2 to 3 ft wide, depending on capacity. Equipment is for use with 2-, 2½- and 3-ton compressors.

One line of evaporative condensers comes in six sizes from 7½ to 40 tons capacity. All sections are bolted together with rubber gaskets for tightness. Blowers can be rotated or reversed to blow vertically or horizontally to front or rear. It is suitable for outside installation.

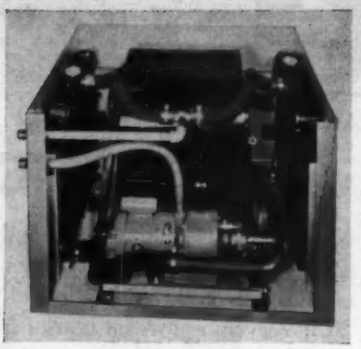
Heat Pump

In principle and application, the heat pump is not new. It has been used in industry and installed in office buildings. What is new is that instead of an assembled system, there are several companies now producing packaged heat pumps in sizes for houses and small commercial applications.

The heat pump may draw heat from well water, the earth (through embedded pipe), or outside air. Field studies conducted by the Union Electric Company of St. Louis covering heat pump design, operating costs, heat sources and public acceptance indicated that while air-to-air operation of the heat pump was satisfactory for summer operation, the direct expansion ground coil was the more effective heat source in winter with respect to both first cost and coefficient of performance.

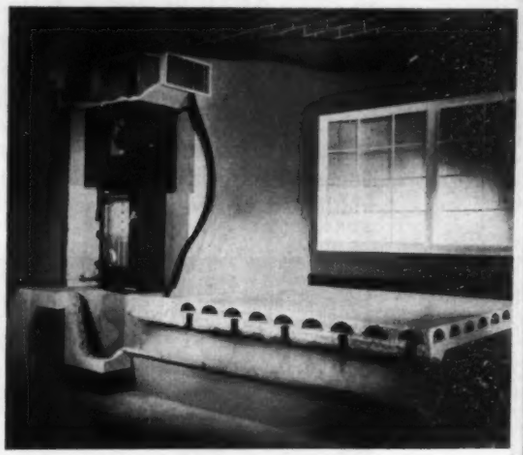
Industry is very optimistic about the heat pump. One manufacturer predicts that by 1964 there will be a yearly production of 100,000 heat pumps.

Another company now has a 10-hp heat pump available, designed for use in large homes and industrial buildings. It consists of two 5-hp compressors in completely sealed hermetic systems. In addition there are also 3- and 5-hp units.



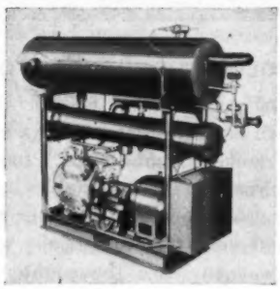
Airtemp Div. Chrysler Corp.

Automobile-type radiators cool condenser water for 3-hp conditioner

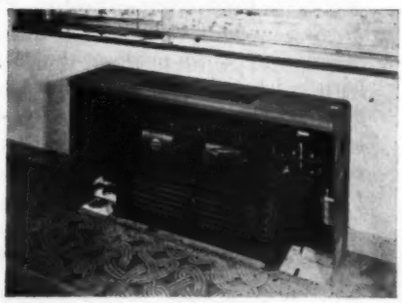


Leemhuis Airfloor Co.

Double-deck floor slab for panel heating

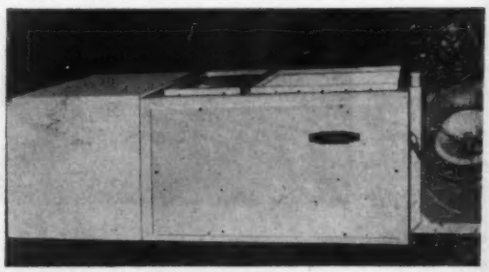


Packaged water chiller in 10 to 50 ton sizes supplies cooling to room units



The Trane Co

3-hp air conditioner has three sections



York-Shipley, Inc.

NEW HOME PRODUCTS AT NAHB SHOW

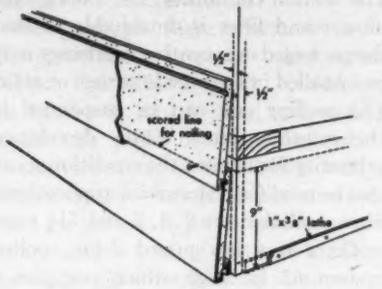
More than 300 manufacturers displayed their products at the 11th Annual Convention of the National Association of Home Builders in Chicago from January 16 to 20. Everything for the house, from the inside out, was on view. The keynote seemed to be not only to make things easier for the homeowner and his wife through automatic, practical and easily handled and maintained devices, but also to make things easier and faster for the builder to erect and finish a house. Here are just a few of the new products of interest to architects.

PRE-PRIMED SIDINGS IN HARDBOARD AND ALUMINUM CUT INSTALLATION AND MAINTENANCE COSTS

Two new sidings will cut down both installation and maintenance costs, according to their manufacturers. A new *Masonite* siding, of pre-primed Presdwood, rests in aluminum strips which are nailed to insulation. The *Shadowvent* siding, which comes in 10- and 12-in. widths, can expand or contract without buckling. The metal strip is vented at 8-in. intervals to allow accumulated moisture to escape. The photograph below left shows the siding sections resting in their aluminum channels. After one siding strip is placed, the next aluminum channel is nailed over it ready to receive the next length of siding. Metal corner plates fit into each other from the top. *Masonite Corp., Box 777, Chicago 90, Ill.*

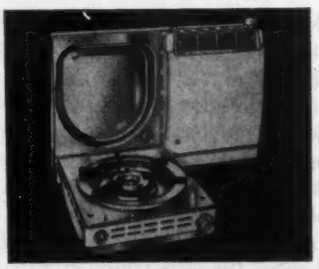


3D-Inselum aluminum clapboard siding is finished in baked enamel (white, green, gray or yellow) to provide practically a maintenance-free exterior. As shown in the drawing at the right, asphalt-impregnated insulation board is nailed to the studs on a pre-scored nailing line. The aluminum siding is applied by inserting the lip of the lower edge under the insulation and resting the top in a groove in the insulation board. The next piece of insulation board is rested on top of the aluminum siding, and the process is repeated. This wall can also expand and contract, has concealed nailing and is fire- and termite-resistant. *Jones & Brown, Inc., 439 Sixth Ave., Pittsburgh 19, Pa.*



FOLDAWAY BURNERS FOR COOKING FREE COUNTER SPACE

Foldaway burners for surface cooking will be on the market next month from Frigidaire and Dixie Products. The burners, with adjustable heat ranges, rest on the working counter when in use and shut off automatically when folded away to leave the counter free as a working area. The *Dixie* burner, shown at right, is available for gas or electric operation from *Dixie Products, Inc., Cleveland, Tenn.*



Frigidaire, which produces the electric burner pictured right, is also marketing a new "French Door" oven to save kitchen space and give easy access to cooking foods. *Frigidaire, Daylon 1, Ohio.*



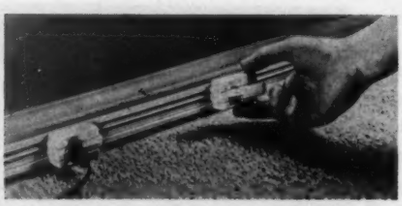
READY-HUNG PACKAGED DOORS

Ready Hung doors are packaged complete, with the door hung and locked and the frame trimmed on both sides ready to install in any rough opening. Furnished in a variety of door and trim styles, the packaged unit is made left and right in all standard sizes for inside doors and does not require special framing of the rough opening. Fasteners on mitre joints in the trim keep mitres tight indefinitely. Installation drawings below show the door and grooved half being fitted into the opening, the tongue of the opposite half of the frame being fitted into the grooved half, and the final nailing through the stop into jambs after the sections have been squeezed together at the top corners. *Ready Hung Door Corp., Neil P. Anderson Bldg., Fort Worth 2, Tex.* (*More products on page 226*)



PLASTIC WALL STRIP CONTAINS WIRING FOR MOVABLE OUTLETS

Electrostrip, a rigid vinyl plastic strip containing wires and having flexibility enough to be hand-molded around corners, pipes and posts, eliminates the inconvenience of badly located or inadequate wall plugs and the necessity for long extension cords. Movable outlets can be snapped into the strip any place along its length. Listed by Underwriters' Laboratories, Electrostrip is produced in a natural ivory color which can be painted. *Bulldog Electric Products Co., Electrostrip Div., 7610 Joseph Campan Ave., Detroit 32, Mich.*



STAINLESS STEEL WALLS IN SOCONY-VACUUM BUILDING TO BE LARGEST APPLICATION

The new Socony-Vacuum Building now under construction on a 2-acre tract at 42nd Street and Lexington Avenue in New York City is being acclaimed with many titles, all of them different but all of them containing the word "largest."

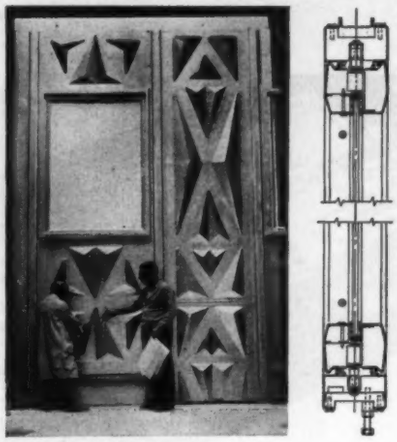
1. The sixth *largest* office building in the world (1,300,000 sq ft of office space).
2. The *largest* building in the world to be sheathed in stainless steel.
3. The *largest* completely air-conditioned building in the world.
4. The *largest* office floor of any building in New York City (the second floor, with 75,000 sq ft).

The fourth through the forty-second floors of the 45-story skyscraper will be completely sheathed with 20-gauge stainless steel wall and window panels $\frac{1}{32}$ in. thick backed up by 4 in. of masonry and an air space. The first will be installed early this spring, following completion of the steel skeleton. A simple design by sculptor Anthony Dal Pino (shown in the photograph right with superintendent William Decker) is stamped on the panels with raised surfaces $1\frac{1}{2}$ in. high to reflect light and cast shadows. Except for a few special sizes, the panels will measure 11 ft 9 in. long by 4 ft 1 in. wide.

More than 3200 windows in stainless steel frames 4 ft 8 in. wide by 6 ft 7 in. high will be incorporated in the exterior panels. The windows turn 360 deg in their mountings on vertical axes, so that all cleaning can be done from inside. A lock assembly in the frame ensures that the window will stay closed except when opened by key holders for maximum air conditioning efficiency. Double vinyl plastic gaskets are designed to be weathertight in winds of 100 mph. If any rain does get past the weatherstripping, it will be collected in a groove at the bottom of the frame from which it will be carried through a tube to an aperture in the vertical joint of the wall panel and allowed to run off. (See cross section of window at right.)

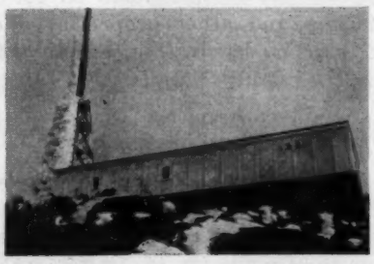
Galbreath Corp., owner of the building, has disclosed many reasons for the selection of stainless steel:

1. More office space (3 per cent more) because of reduced wall thickness, which also cuts wall weight to 40 psf.
2. Corrosion and fire resistance (320 stainless steel has high nickel content for weather resistance).
3. Low maintenance costs (panels can be washed).
4. Durability and lasting beauty.



The lower three floors of the building will be faced with granite, glass and stainless steel. The top three floors, which will house machinery, will be sheathed with stainless steel louvers.

Harrison and Abramovitz, with John B. Peterkin as associate, are the architects; Edwards and Hjorth, structural engineers; Jaros Baum and Bolles, mechanical engineers; Edward A. Ashley, electrical engineer; Turner Construction Co., builder; Truscon Steel Div. of Republic Steel Corp., stainless steel fabricators. The air conditioning system will be considered in a later issue.



A prefabricated structure of stressed-skin plywood panels made in small, light sections met the unusual and stringent requirements of building a television transmitting station at the top of Mount Washington, New Hampshire. The building had to be —

1. *Strong*, to resist the wind velocities of 100 mph (common) and up to 230 mph and to withstand the impact loads of heavy pieces of ice falling from the tower onto the roof (see photo above).
2. *Ready-made in small sections and light* so that the road and cog-wheel railroad to the summit could haul them and so that the heavy, bulky parts of the transmitting system could be enclosed immediately after installation without being exposed to inclement weather.
3. *Transparent to microwaves* on one side to house receivers for programs from Poland, Me., 50 miles away.

STRESSED SKIN PANELS CAN LICK 230 MPH WINDS

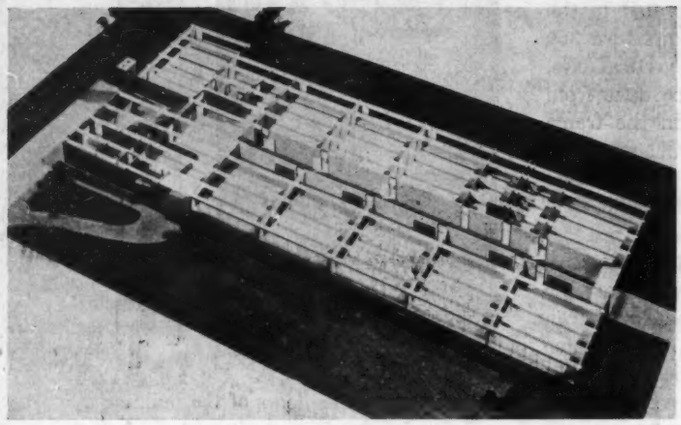
Stressed-skin panels of exterior-grade Douglas fir plywood on cellular grid cores were used for floors, walls, roof and principal cross partitions of the 35- by 78-ft one-story building. The walls resist bending pressures of 150 psf and the roof resists bending loads caused by uplift forces of about 150 psf and those caused by snow. Walls, roof and interior partitions act as stiffening diaphragms. All sections had to be securely anchored against sidewise pressures and uplift. Foundations, particularly the footings under a line of columns at the center of the building, had to be anchored into the rock to prevent uplift. The roof construction, comprising a cover sheet of plywood, a cushion of balsa and an upper layer of plywood, was undamaged by a 200-lb block of ice which was dropped from a 50-ft height.



The microwave-transparent wall is formed of a single $\frac{3}{16}$-in.-thick cover sheet of polyester resin reinforced with woven glass-fiber fabric on wood studs. The reinforced plastic sheet was blown halfway down the mountainside while it was being erected during one of the three major hurricanes last year, and was recovered with just a few bruises.

The structure has been steady and has vibrated little, in spite of its relatively light construction. Reception and transmission have been good, report Albert G. H. Dietz and William J. LeMessurier, consulting engineers on the project. Koehler and Isaacs, Manchester, N. H., were architects; Keller Products, Inc., fabricator and builder.

(Roundup continued on page 266)



STRUCTURAL SYSTEMS

• *Comparative Costs of Low-Cost Schools* is a research report on the use of 'L'-shaped clay masonry interior walls as a basic structural element. The report states that in addition to being low in cost, structural clay masonry walls used as classroom partitions are effective in sound isolation, are fire resistant and are not subject to excessive dimensional change under varying temperature and moisture. 20 pp, illus. *Structural Clay Research Foundation, Chicago, Ill.*

• "*Row Housing with Flexicore*" is a four-page, illustrated folder outlining a simplified, fire-resistant, structural system for row housing, dorms, apartment and similiar projects. *The Flexicore Co., 1932 E. Monument Ave., Dayton 1, Ohio.**

• The results of laboratory tests on allowable load values for joist hangars are disclosed in a four-page folder which includes descriptions, specifications and detail drawings. *Arch Rib Truss Corp., P. O. Box 6742, Los Angeles.*

• "*The Fable of the Meticulous Engineer*" points out in pictorial style how savings can be made by standardizing on beam and column sizes throughout a building. *The Concrete Reinforcing Steel Institute, 38 S. Dearborn St., Chicago 3, Ill.**

STRUCTURAL FACING TILE

• A four-page folder illustrates, describes and gives face and bed depth dimension tolerances of *Keramet* structural facing tile. *Metropolitan Brick, Inc., 1019 Renkert Bldg., Canton 2, Ohio.*

GRANITE CORNER ELLS AND FACINGS

• Structural details of granite corner ells, single-unit pilaster facings and radius face units are described in a folder issued by the *Cold Spring Granite Co., Cold Spring, Minn.**

LIMESTONE VENEERS

• A description of limestone veneer and photographs illustrating its use for houses is offered in a four-page folder. *Indiana Limestone Co., Inc., Bedford, Ind.**

* *Other product information in Sweet's Architectural File, 1954*

PLANNING SCHOOL SHOPS

• *School Shops for Today and Tomorrow* offers plans and descriptions of machine shops for schools (elementary through senior high and technical schoools) and includes farm shops, occupational therapy and military recreational facilities. 42 pp, illus. *Delta Power Tool Div., Rockwell Mfg. Co., 400 N. Lexington Ave., Pittsburgh 8, Pa.*

WINDOWS, WINDOW ACCESSORIES

• *Koolshade Sunscreen*, which offers insect protection as well as protection from the sun, is described and illustrated in an eight-page booklet. *Ingersoll Products Division, Borg-Warner Corp., 310 S. Michigan Ave., Chicago 4, Ill.**

• An eight-page booklet gives specifications, descriptions and detail drawings of wood awning windows and includes loose-leaf price sheets. *General Woodcraft Co., Miami, Fla.*

• A manila file folder contains venetian blind information including a 20-page booklet describing style, size and color; a 16-page booklet describing mechanism and illustrating installation with detail drawings and a sample booklet of blind and ribbon colors and textures. *Hunter Douglas Corp., 150 Broadway, New York.**

• Illustrations of installation, construction details and specifications are contained in *Aluminum Windows Catalog 55-2* on church and chapel windows, ribbon windows and projected sash, curtain wall, glass block vents and aluminum wall of windows. *Marmet Corp., Wausau, Wis.**

PORCELAIN ENAMELED PANELS

• A six-page folder contains detailed information on architectural porcelain "double-wall" panel construction and installation illustrated with cross-sectional drawings and photos of actual installations. *Davidson Enamel Products, Inc., 1100 E. Kibby St., Lima, Ohio.**

• Porcelain enameled steel or aluminum panels, called *Porcelpanels*, are described in a 12-page brochure which includes specifications, data on color, finishes and other properties and construction details. *Ingram-Richardson Mfg. Co., Beaver Falls, Pa.**

FIBERGLAS BUILDING PANELS

• A four-page booklet contains a color chart, specifications, and installation information, on translucent fiberglas panels. *Alsynite Co. of America, 4654 De Soto St., San Diego 9, Calif.**

COOLING TOWERS

• Information on indoor installation of residential cooling towers is available in an 8-page, illustrated brochure issued *by Halstead and Mitchell, Bessemer Bldg., Pittsburgh 22, Pa.*

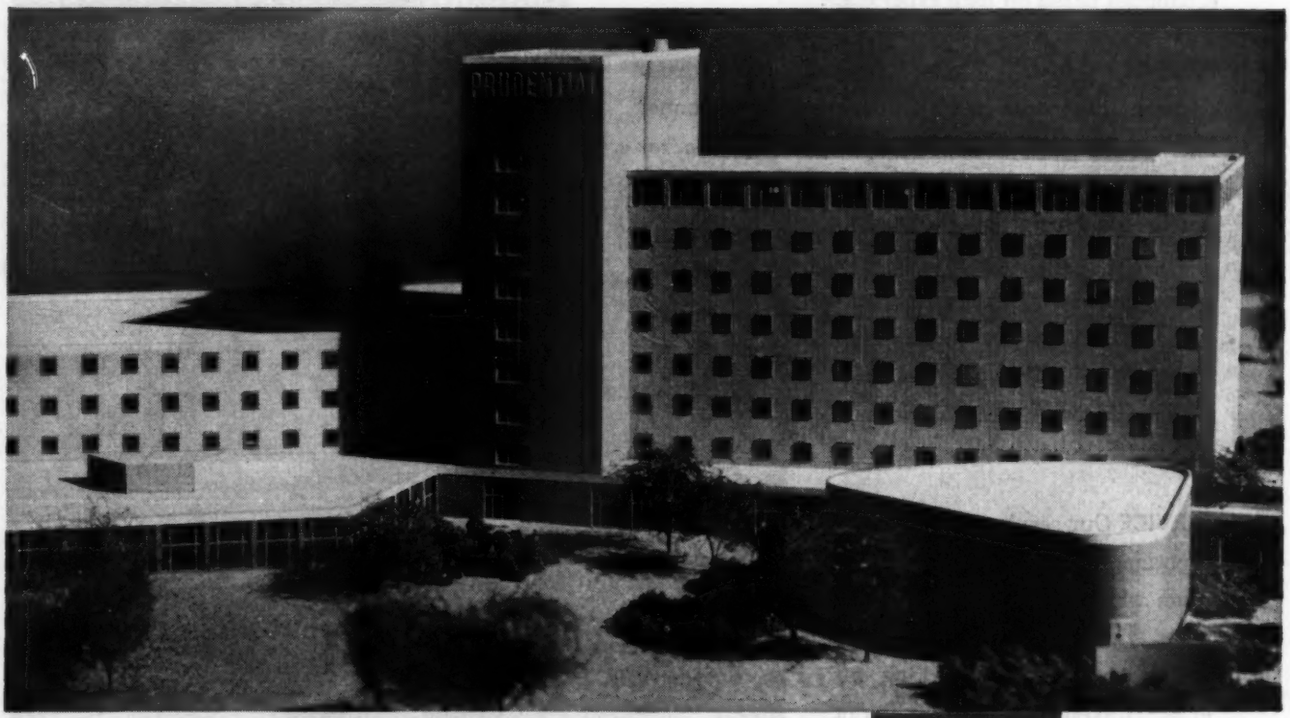
• Flow-cold cooling towers are described and illustrated in detail in an eight-page booklet. *Acme Industries, Inc., Jackson, Mich.**

HOME WIRING SYSTEMS

• A chart showing load and circuit requirements for home wiring systems can be obtained from *Kennecott Copper Corp., 161 E. 42nd St., New York 17, N. Y.**

(*Continued on page 276*)

Another **Adlake** aluminum window installation



Prudential Insurance Company of America, Minneapolis, Minn.
Architects and Engineers—Magney, Tusler & Setter
General Contractor—C. F. Haglin & Son's Co.
Equipped with Adlake Reversible Window

- Minimum air infiltration
- Finger-tip control
- No painting or maintenance
- No warp, rot, rattle, stick or swell
- Guaranteed non-metallic weatherstripping (patented serrated guides on double hung windows)

Adlake
PROVEN QUALITY WINDOW

This window meets or exceeds all quality industry specifications for aluminum windows.
THE Adams & Westlake COMPANY
Elkhart, Indiana

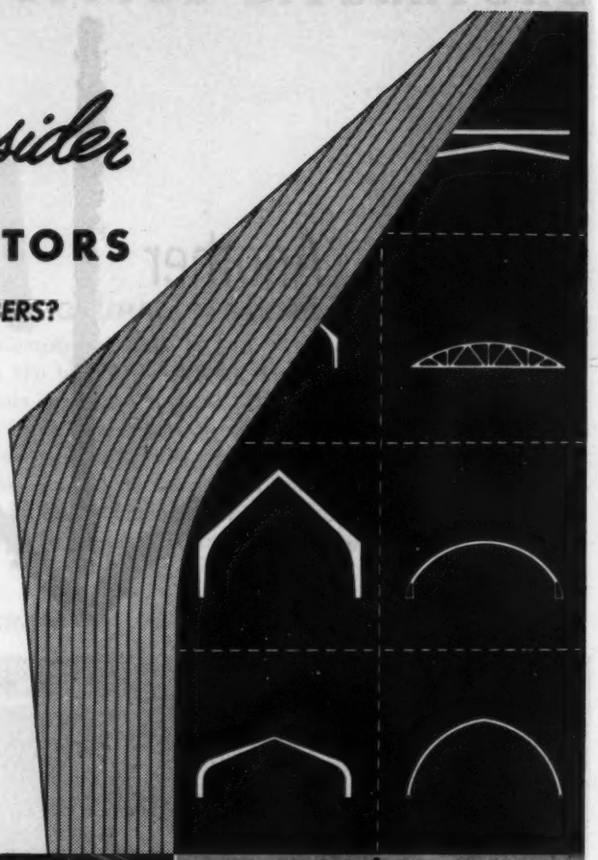
Adlake 98th year

The Adams & Westlake Company
Established 1857 • ELKHART, INDIANA • Chicago • New York

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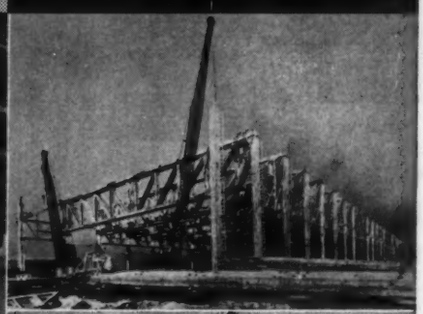
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THERMAL INSULATION — 6: U Factors for Frame Walls

By Laurence Shuman, Consulting Engineer

Legend:

Interior Finishes

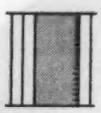
- **A** Metal lath and plaster
- **B** Gypsum board, 3/8" decorated
- **C** Wood lath and plaster
- **D** Gypsum lath, 3/8" and plaster
- **E** Plywood 3/8"
- **F** Insulating board, 1/2" plain or decorated
- **G** Insulating board, 1/2" and plaster
- **H** Insulating board, 1" and plaster

Sheathing

- **1** Gypsum 1/2"
- **2** Plywood 5/16"
- **3** Wood and building paper 25/32"
- **4** Insulating board 25/32"

Wall Type	External Finish	Sheathing	Interior Finish A	B	C	D	E	F	G	H
 Stud space filled with insulation	Wood Siding	1	.08	.08	.08	.08	.07	.07	.07	.06
		2	.08	.08	.08	.07	.07	.07	.07	.06
		3	.07	.07	.07	.07	.07	.06	.06	.06
		4	.07	.07	.06	.06	.06	.06	.06	.05
	Wood Shingle	1	.07	.07	.07	.07	.07	.06	.06	.06
		2	.07	.07	.07	.07	.07	.06	.06	.06
		3	.07	.07	.07	.07	.07	.06	.06	.06
		4	.06	.06	.06	.06	.06	.06	.05	.05
	Stucco	1	.08	.08	.08	.08	.08	.07	.07	.06
		2	.08	.08	.08	.08	.08	.07	.07	.06
		3	.08	.08	.07	.07	.07	.07	.07	.06
		4	.07	.07	.07	.07	.07	.06	.06	.06
	Brick Veneer	1	.08	.08	.08	.08	.08	.07	.07	.06
		2	.08	.08	.08	.08	.08	.07	.07	.06
		3	.07	.07	.07	.07	.07	.07	.07	.06
		4	.07	.07	.07	.07	.07	.06	.06	.05

Wall Type	External Finish	Sheathing	Interior Finish A	B	C	D	E	F	G	H
 2" bat or blanket insulation in stud space and reflective paper on cold side of insulation 1 air space	Wood Siding	1	.09	.09	.08	.08	.08	.08	.08	.07
		2	.09	.09	.08	.08	.08	.08	.08	.07
		3	.08	.08	.08	.08	.08	.07	.07	.06
		4	.07	.07	.07	.07	.07	.07	.07	.06
	Wood Shingle	1	.08	.08	.08	.08	.08	.07	.07	.06
		2	.08	.08	.08	.08	.08	.07	.07	.06
		3	.08	.08	.08	.08	.08	.07	.07	.06
		4	.07	.07	.07	.07	.07	.06	.06	.06
	Stucco	1	.09	.09	.09	.09	.09	.08	.08	.07
		2	.09	.09	.09	.09	.09	.08	.08	.07
		3	.08	.08	.08	.08	.08	.08	.08	.07
		4	.08	.08	.08	.08	.07	.07	.07	.06
	Brick Veneer	1	.08	.08	.08	.08	.08	.08	.07	.07
		2	.08	.08	.08	.08	.08	.08	.07	.07
		3	.08	.08	.08	.08	.08	.07	.07	.06
		4	.07	.07	.07	.07	.07	.07	.07	.06

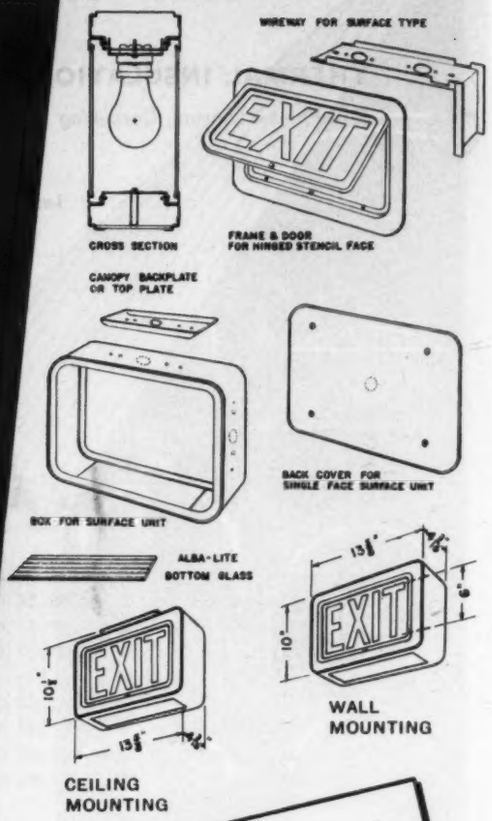
Wall Type	External Finish	Sheathing	Interior Finish A	B	C	D	E	F	G	H
 Aluminum foil backup on cold side of lath. 1 air space	Wood Siding	1	.22	.22	.21	.21	.21	.17	.17	.13
		2	.22	.22	.21	.21	.21	.17	.17	.13
		3	.18	.18	.18	.18	.18	.15	.14	.12
		4	.15	.15	.14	.14	.14	.12	.12	.10
	Wood Shingle	1	.18	.18	.17	.17	.17	.14	.14	.11
		2	.18	.17	.17	.17	.17	.14	.14	.11
		3	.18	.18	.18	.18	.18	.15	.14	.12
		4	.13	.13	.13	.12	.12	.11	.11	.09
	Stucco	1	.27	.27	.26	.26	.25	.20	.19	.14
		2	.27	.26	.25	.25	.25	.20	.19	.14
		3	.21	.21	.21	.21	.20	.17	.16	.13
		4	.17	.17	.16	.16	.16	.14	.13	.11
	Brick Veneer	1	.22	.22	.21	.21	.21	.17	.16	.13
		2	.22	.22	.21	.21	.21	.17	.16	.13
		3	.18	.18	.18	.18	.18	.15	.14	.11
		4	.15	.15	.14	.14	.14	.12	.12	.10

Wall Type	External Finish	Sheathing	Interior Finish A	B	C	D	E	F	G	H
 1 sheet ordinary building paper placed to form 2 equal air spaces in stud space	Wood Siding	1	.24	.24	.23	.23	.23	.18	.18	.14
		2	.24	.24	.23	.23	.23	.18	.17	.14
		3	.20	.20	.19	.19	.19	.16	.16	.12
		4	.16	.16	.16	.16	.16	.13	.13	.11
	Wood Shingle	1	.19	.19	.19	.19	.19	.15	.15	.12
		2	.19	.19	.19	.19	.18	.15	.15	.12
		3	.20	.20	.19	.19	.19	.16	.16	.12
		4	.14	.14	.14	.14	.13	.12	.11	.10
	Stucco	1	.29	.29	.28	.27	.27	.21	.20	.15
		2	.29	.28	.27	.27	.27	.20	.20	.15
		3	.24	.23	.23	.22	.22	.18	.17	.14
		4	.18	.18	.18	.18	.17	.15	.14	.12
	Brick Veneer	1	.24	.24	.23	.23	.23	.18	.17	.14
		2	.24	.24	.23	.23	.22	.18	.17	.14
		3	.20	.20	.19	.19	.19	.16	.16	.12
		4	.16	.16	.16	.16	.16	.13	.13	.11



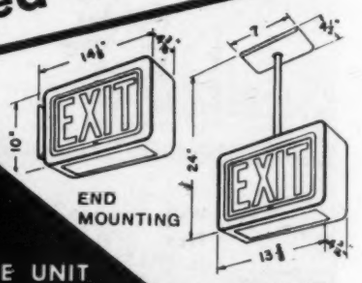
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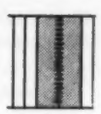
THERMAL INSULATION — 7: U Factors for Frame Walls

By Laurence Shuman, Consulting Engineer

Legend:

Interior Finishes		Sheathing
A Metal lath and plaster	E Plywood 3/8"	1 Gypsum 1/2"
B Gypsum board, 3/8" decorated	F Insulating board, 1/2" plain or decorated	2 Plywood 5/16"
C Wood lath and plaster	G Insulating board, 1/2" and plaster	3 Wood and building paper 25/32"
D Gypsum lath, 3/8" and plaster	H Insulating board, 1" and plaster	4 Insulating board 25/32"

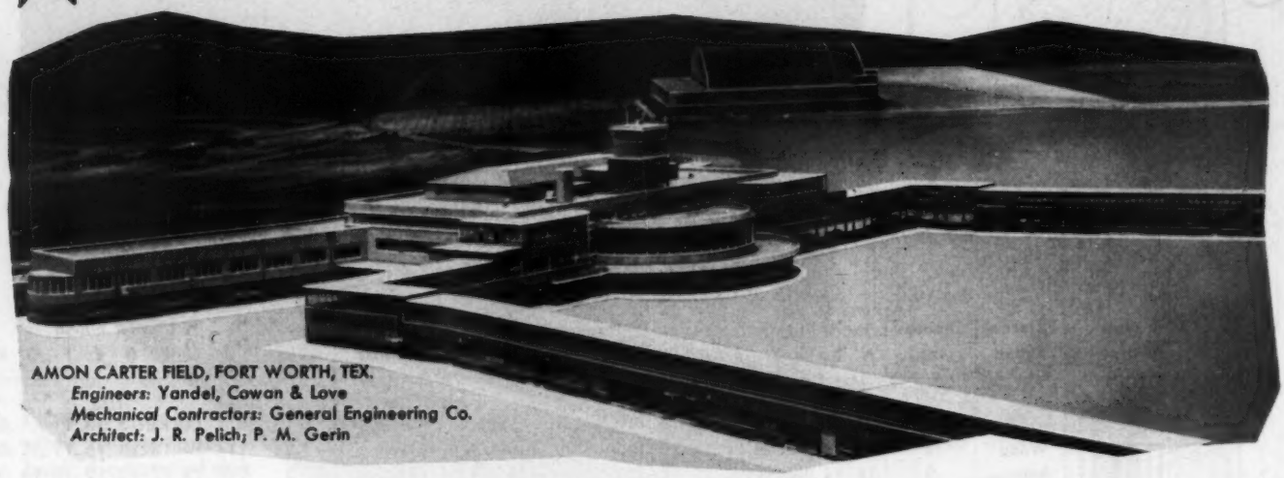
Wall Type	External Finish	Sheathing	Interior Finish A	B	C	D	E	F	G	H
 1 sheet reflective paper placed to form 2 equal air spaces in stud space	Wood Siding	1	.16	.16	.16	.16	.16	.13	.13	.11
		2	.16	.16	.16	.16	.16	.13	.13	.11
		3	.14	.14	.14	.14	.14	.12	.12	.10
		4	.12	.12	.12	.12	.12	.10	.10	.09
	Wood Shingle	1	.14	.14	.13	.13	.13	.12	.11	.10
		2	.14	.14	.13	.13	.13	.11	.11	.10
		3	.14	.14	.14	.14	.14	.12	.12	.10
		4	.11	.11	.10	.10	.10	.09	.09	.08
	Stucco	1	.19	.19	.18	.18	.18	.15	.14	.12
		2	.19	.19	.18	.18	.18	.15	.14	.12
		3	.16	.16	.16	.16	.15	.13	.13	.11
		4	.13	.13	.13	.13	.13	.11	.11	.09
	Brick Veneer	1	.16	.16	.16	.16	.16	.13	.13	.11
		2	.16	.16	.16	.16	.16	.13	.13	.11
		3	.14	.14	.14	.14	.14	.12	.12	.10
		4	.12	.12	.12	.12	.12	.10	.10	.09

Wall Type	External Finish	Sheathing	Interior Finish A	B	C	D	E	F	G	H
 1 sheet aluminum foil placed to form 2 equal air spaces in stud space	Wood Siding	1	.14	.14	.13	.13	.13	.11	.11	.09
		2	.14	.14	.13	.13	.13	.11	.11	.09
		3	.12	.12	.12	.12	.12	.10	.10	.09
		4	.10	.10	.10	.10	.10	.09	.09	.08
	Wood Shingle	1	.12	.12	.11	.11	.11	.10	.10	.08
		2	.12	.12	.11	.11	.11	.10	.10	.08
		3	.12	.12	.12	.12	.12	.10	.10	.09
		4	.09	.09	.09	.09	.09	.08	.08	.07
	Stucco	1	.16	.15	.15	.15	.15	.13	.12	.10
		2	.15	.15	.15	.15	.15	.13	.12	.10
		3	.13	.13	.13	.13	.13	.11	.11	.09
		4	.11	.11	.11	.11	.11	.10	.10	.08
	Brick Veneer	1	.14	.14	.13	.13	.13	.11	.11	.09
		2	.14	.13	.13	.13	.13	.11	.11	.09
		3	.12	.12	.12	.12	.12	.10	.10	.09
		4	.10	.10	.10	.10	.10	.09	.09	.08

Wall Type	External Finish	Sheathing	Interior Finish A	B	C	D	E	F	G	H
 2 sheets aluminum foil placed to form 3 equal air spaces in stud space	Wood Siding	1	.09	.09	.09	.09	.09	.08	.08	.07
		2	.09	.09	.09	.09	.09	.08	.08	.07
		3	.08	.08	.08	.08	.08	.07	.07	.06
		4	.07	.07	.07	.07	.07	.06	.06	.06
	Wood Shingle	1	.08	.08	.08	.08	.08	.07	.07	.06
		2	.08	.08	.08	.08	.08	.07	.07	.06
		3	.08	.08	.08	.08	.08	.07	.07	.06
		4	.06	.06	.06	.06	.06	.06	.06	.05
	Stucco	1	.09	.09	.09	.09	.09	.08	.08	.07
		2	.09	.09	.09	.09	.09	.08	.08	.07
		3	.09	.08	.08	.08	.08	.07	.07	.07
		4	.08	.07	.07	.07	.07	.07	.07	.06
	Brick Veneer	1	.09	.09	.09	.09	.09	.08	.08	.07
		2	.09	.09	.09	.09	.09	.08	.07	.07
		3	.08	.08	.08	.08	.08	.07	.07	.06
		4	.07	.07	.07	.07	.07	.06	.06	.06

Wall Type	External Finish	Sheathing	Interior Finish A	B	C	D	E	F	G	H
 1" blanket insulation placed to form 2 equal air spaces in stud space, and having aluminum foil on warm side of blanket	Wood Siding	1	.10	.10	.10	.10	.10	.09	.09	.08
		2	.10	.10	.10	.10	.10	.09	.09	.08
		3	.09	.09	.09	.09	.09	.08	.08	.07
		4	.08	.08	.08	.08	.08	.07	.07	.07
	Wood Shingle	1	.09	.09	.09	.09	.09	.08	.08	.07
		2	.09	.09	.09	.09	.09	.08	.08	.07
		3	.09	.09	.09	.09	.09	.08	.08	.07
		4	.08	.08	.07	.07	.07	.07	.07	.06
	Stucco	1	.11	.11	.11	.11	.11	.10	.09	.08
		2	.11	.11	.11	.11	.11	.09	.09	.08
		3	.10	.10	.10	.10	.10	.09	.09	.08
		4	.09	.09	.09	.09	.09	.08	.08	.07
	Brick Veneer	1	.10	.10	.10	.10	.10	.09	.09	.08
		2	.10	.10	.10	.10	.10	.09	.09	.08
		3	.09	.09	.09	.09	.09	.08	.08	.07
		4	.08	.08	.08	.08	.08	.07	.07	.06

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THERMAL INSULATION — 8: U Factors for Masonry Walls

By Laurence Shuman, Consulting Engineer

Legend:

Interior Finishes

- **A** No finish, plain wall
- **B** Plaster, ½", direct on masonry
- **C** Metal lath and plaster
- **D** Gypsum board, ⅜" decorated
- **E** Gypsum lath, ⅜", plastered
- **F** Insulation board, ½", plain or decorated
- **G** Insulation board, ½", plastered
- **H** Insulation board, 1", plastered

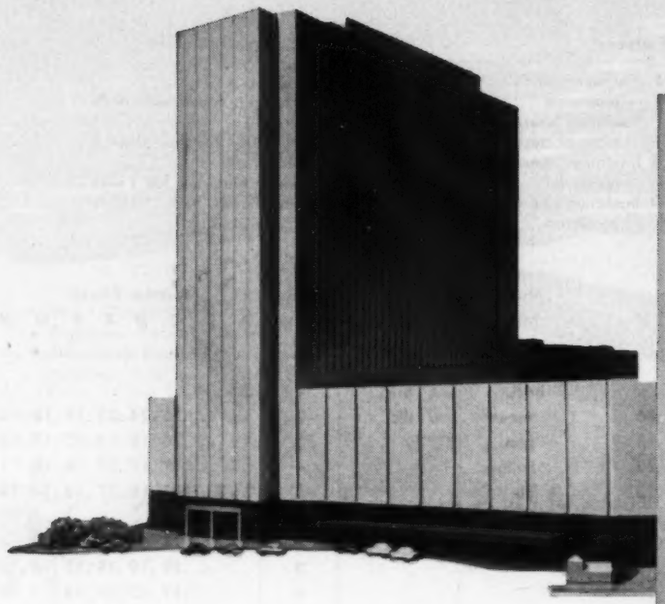
Furring Space Treatment

- **1** No furring
- **2** 1" nominal furring, faced with ordinary materials
- **3** Same, faced with reflective coated paper 1 side
- **4** Same, faced with aluminum foil 1 side
- **5** Same, space filled with flexible insulation

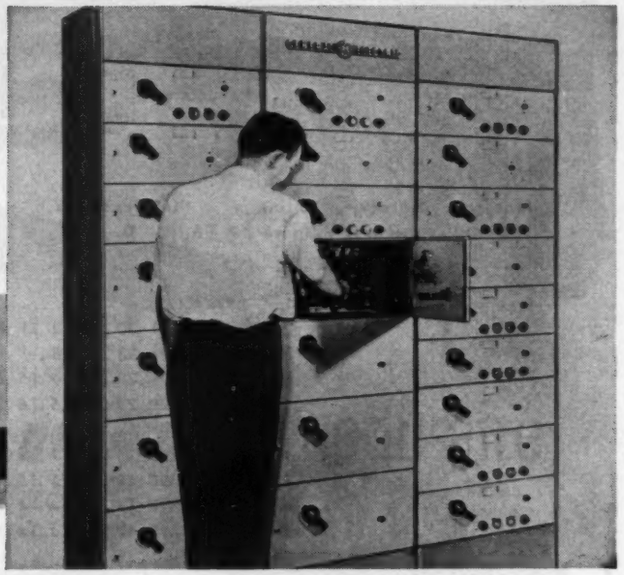
Masonry Material	Masonry Thickness	Furring Space	Interior Finish A	B	C	D	E	F	G	H
Brick	8"	1	.50	.46	..	..	..	..	..	..
		2	..	..	.31	.30	.29	.22	.21	.16
		3	..	..	.24	.23	.23	.18	.17	.13
		4	..	..	.21	.20	.20	.16	.15	.12
		5	..	..	.20	.20	.20	.16	.16	.13
	12"	1	.36	.34	..	..	..	..	..	..
		2	..	..	.25	.24	.23	.19	.18	.14
		3	..	..	.20	.19	.19	.15	.15	.12
		4	..	..	.17	.17	.17	.14	.14	.11
		5	..	..	.18	.17	.17	.14	.14	.12
	16"	1	.28	.27	..	..	..	..	..	..
		2	..	..	.21	.20	.20	.16	.16	.13
		3	..	..	.17	.17	.16	.14	.13	.11
		4	..	..	.15	.15	.15	.12	.12	.10
		5	..	..	.15	.15	.15	.13	.13	.11
Poured concrete	6"	1	.79	.71	..	..	..	..	..	..
		2	..	..	.40	.39	.37	.26	.25	.18
		3	..	..	.29	.29	.28	.20	.20	.15
		4	..	..	.25	.25	.24	.18	.18	.14
		5	..	..	.24	.24	.23	.18	.18	.14
	8"	1	.70	.64	..	..	..	..	..	..
		2	..	..	.38	.37	.35	.25	.24	.17
		3	..	..	.28	.28	.26	.20	.19	.15
		4	..	..	.24	.23	.22	.18	.17	.13
		5	..	..	.23	.23	.22	.18	.17	.14
	10"	1	.63	.58	..	..	..	..	..	..
		2	..	..	.36	.35	.33	.24	.23	.17
		3	..	..	.26	.26	.25	.19	.19	.14
		4	..	..	.23	.23	.22	.17	.17	.13
		5	..	..	.22	.22	.21	.17	.17	.13
	12"	1	.57	.53	..	..	..	..	..	..
		2	..	..	.34	.33	.31	.23	.22	.17
		3	..	..	.25	.25	.24	.19	.18	.14
		4	..	..	.22	.22	.21	.17	.16	.13
		5	..	..	.22	.21	.21	.17	.16	.13
Brick veneer plus poured concrete	4" brick 6" concrete	1	.59	.54	..	..	..	..	..	..
		2	..	..	.34	.34	.32	.23	.22	.17
		3	..	..	.26	.25	.24	.19	.18	.14
		4	..	..	.22	.22	.21	.17	.16	.13
		5	..	..	.22	.22	.21	.17	.17	.13
	4" brick 8" concrete	1	.54	.50	..	..	..	..	..	..
		2	..	..	.32	.32	.30	.23	.22	.16
		3	..	..	.25	.24	.23	.18	.18	.14
		4	..	..	.22	.22	.21	.16	.16	.13
		5	..	..	.21	.21	.20	.17	.16	.13

Masonry Material	Masonry Thickness	Furring Space	Interior Finish A	B	C	D	E	F	G	H
Brick veneer plus hollow tile	4" brick 6" tile	1	.36	.34	..	..	..	..	..	..
		2	..	..	.25	.24	.23	.19	.18	.14
		3	..	..	.20	.19	.19	.15	.15	.12
		4	..	..	.17	.17	.17	.14	.14	.11
		5	..	..	.18	.18	.17	.14	.14	.12
	4" brick 8" tile	1	.34	.32	..	..	..	..	..	..
		2	..	..	.24	.24	.23	.18	.18	.14
		3	..	..	.19	.19	.19	.15	.15	.12
		4	..	..	.17	.17	.17	.14	.13	.11
		5	..	..	.17	.17	.17	.14	.14	.11
Brick veneer plus hollow block	4" brick 8" gravel	1	.44	.41	..	..	..	..	..	..
		2	..	..	.29	.29	.28	.21	.20	.15
		3	..	..	.22	.22	.21	.17	.17	.13
		4	..	..	.20	.20	.19	.15	.15	.12
		5	..	..	.20	.19	.19	.16	.15	.12
	4" brick 8" cinder block	1	.34	.33	..	..	..	..	..	..
		2	..	..	.24	.24	.23	.18	.18	.14
		3	..	..	.19	.19	.19	.15	.15	.12
		4	..	..	.17	.17	.17	.14	.13	.11
		5	..	..	.17	.17	.17	.14	.14	.11
	4" brick 8" light-weight block	1	.31	.29	..	..	..	..	..	..
		2	..	..	.23	.22	.22	.17	.17	.13
		3	..	..	.18	.18	.17	.14	.14	.12
		4	..	..	.16	.16	.16	.13	.13	.11
		5	..	..	.16	.16	.16	.14	.13.	11
Hollow tile stucco exterior finish	8"	1	.40	.37	..	..	..	..	..	..
		2	..	..	.27	.26	.25	.20	.19	.15
		3	..	..	.21	.21	.20	.16	.16	.13
		4	..	..	.19	.18	.18	.15	.14	.12
		5	..	..	.19	.18	.18	.15	.15	.12
	10"	1	.39	.37	..	..	..	..	..	..
		2	..	..	.26	.25	.24	.19	.19	.14
		3	..	..	.20	.20	.19	.16	.15	.12
		4	..	..	.18	.18	.17	.14	.14	.11
		5	..	..	.18	.18	.17	.15	.14	.12
	12"	1	.30	.28	..	..	..	..	..	..
		2	..	..	.21	.21	.21	.17	.16	.13
		3	..	..	.17	.17	.17	.14	.14	.11
		4	..	..	.15	.15	.15	.13	.12	.10
		5	..	..	.16	.16	.15	.13	.13	.11
	16"	1	.24	.24	..	..	..	..	..	..
		2	..	..	.19	.18	.18	.15	.15	.12
		3	..	..	.15	.15	.15	.13	.12	.10
		4	..	..	.14	.14	.13	.12	.11	.10
		5	..	..	.14	.14	.14	.12	.12	.10

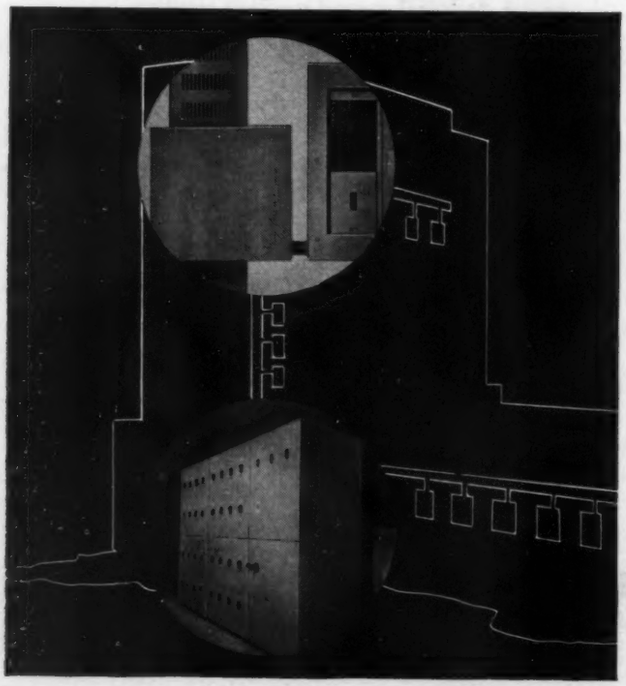
HOW THE AVERAGE BUILDING'S USING G.E.'s "SYSTEM ENGINEERED" CAN BE EXTENDED



Artist's concept of the fabulous new Coliseum now under construction at Columbus Circle, New York City. More than *2 miles* of General Electric's low-voltage-drop Type LVD busways will go into this unique building—one of the first and by far largest higher voltage 480Y/277 (460Y/265)-volt electrical distribution systems ever installed. The variety and flexibility of G-E equipment enable General Electric engineers to give important assistance to consulting engineers, architects and contractors in their planning of a complete system.



Built-in Future of G-E Systems is your answer to forecasts that power consumption in average building will be up 100% by 1965. Here's why: (1) G.E. achieves *true* extendability by designing components to be compact and accessible for addition or relocation. (2) They can be moved and reinstalled with practically 100% re-use of materials. (New Type DA7093 control center above, for example, needs 50% less floor space; has capacity to interrupt 50,000 amperes.) G-E "System Engineered" equipment means 1955 plans can fill future needs.



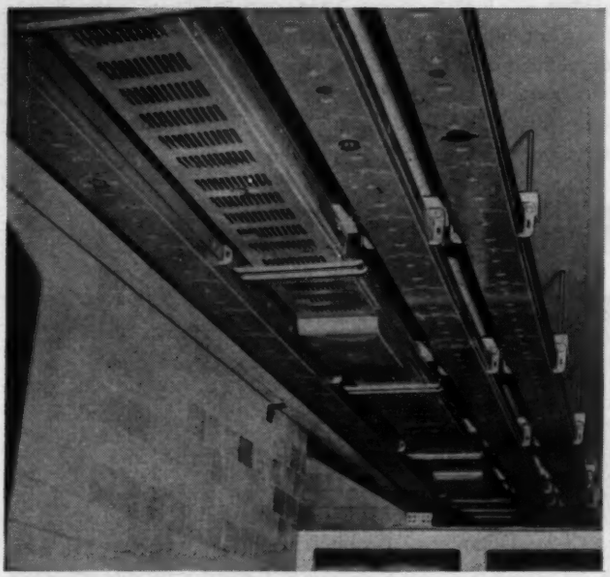
NEW YORK COLISEUM
CONSTRUCTED BY TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY
HON. ROBERT MOSES, CHAIRMAN
ARCHITECTS—LEON AND LIONEL LEVY
MECHANICAL AND ELECTRICAL ENGINEER—GUY B. PANERO
ADVISORY ARCHITECTURAL COMMITTEE—AYMER EMBURY II, EGGERS & HIGGINS, JOHN B. PETERKIN
GENERAL CONTRACTORS—WALSH-FULLER-SLATTERY (JOINT VENTURE)
ELECTRICAL CONTRACTORS—T. FREDERICK JACKSON AND J. LIVINGSTON CO. (JOINT VENTURE)

Cutaway diagram shows tap-offs on risers at each floor of building. Their planned-in-advance accessibility assures flexibility to meet increasing future needs.

• • •

General Electric "System Engineered" equipment provides maximum safety, ease of relocating equipment, reserve power capacity for your future needs. For further details please contact your nearest General Electric Apparatus Sales or Assemblies and Components Sales representative. Or write—GENERAL ELECTRIC COMPANY, DISTRIBUTION ASSEMBLIES DEPARTMENT, PLAINVILLE, CONN.

ELECTRIC DISTRIBUTION, EQUIPMENT, TO MEET 1965's DOUBLED NEEDS!



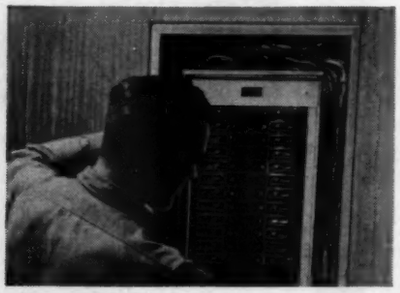


G-E "System Engineered" Equipment is reverse of hodge-podge products using non-integrated parts. (3) Standardized parts throughout G-E System make faster, less costly extension or alteration possible. (4) Since components—control centers, busways, switchboards, panelboards, sectional distribution centers—are engineered to work together, your G-E System *must* give most efficient service and reduced maintenance costs. (G-E Flex-a-Power* busways, above, allow *complete* relocation of loads without rewiring.)

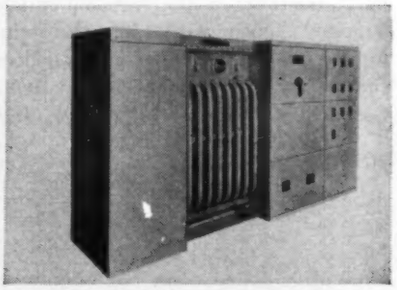
One source of supply is another important cost-reducing factor in G-E "System Engineered" Equipment. (5) Naturally, it simplifies your job because you deal with only one man, the skilled General Electric engineer. He works with consulting engineers, architects and owners from the planning stage to completion of building. He helps them save many hours and dollars. (6) Most important, your G-E man is not selling just products. He is providing G-E "System Engineered" equipment that is designed with a long *built-in* future.



Switchboards—For reliable control, distribution and circuit protection. Completely wired at the factory. Large air or molded-case circuit breakers, fusible switch units, meters, instruments and accessories already installed.



Panelboards—Types NAB, NHB, NLAB, NLTQ, NLTQX, NTP, NTC for lighting—types NCB, CCB, Swing-WA* and Converti-Fuse* for power distribution. Complete line. Factory-assembled for fast, compact installation.



Sectional Distribution Centers—Factory-assembled to reduce installation cost. Short secondary feeders in load-center system mean less voltage drop—rarely more than 2 to 3%. Easy-to-order arrangements eliminate tedious detailing.

*REGISTERED TRADE-MARK OF GENERAL ELECTRIC COMPANY

Progress Is Our Most Important Product

GENERAL ELECTRIC

AIA PRODUCTS

(*Continued from page 214*)

PLASTIC VAPOR BARRIER



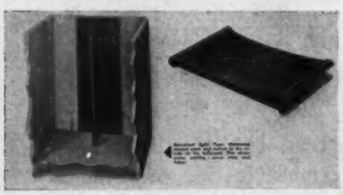
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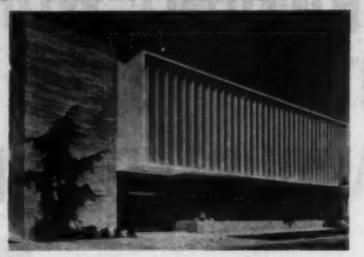
• *Visqueen film, a polyethylene moisture-vapor barrier,* is used under concrete slabs, on the ground in crawl spaces, over subflooring and on the warm side of exterior walls to eliminate moisture penetration. Lightweight, flexible and easily handled in cold and tropical climates, the material is available in seamless sheeting up to 16 ft wide. In photo 1 above the film is laid over a layer of sand to protect it from ground projections. After the strips have been laid and overlapped about 6 in., the base overlaps secured to the wall with asphalt, the holes cut for pipes and outlets wrapped tightly with tape, and reinforcing steel mesh laid, the concrete floor slab is poured, as in photo 2. *The Visking Corp., P.O. Box 1410, Terre Haute, Ind.*

RUBBER WATER STOP



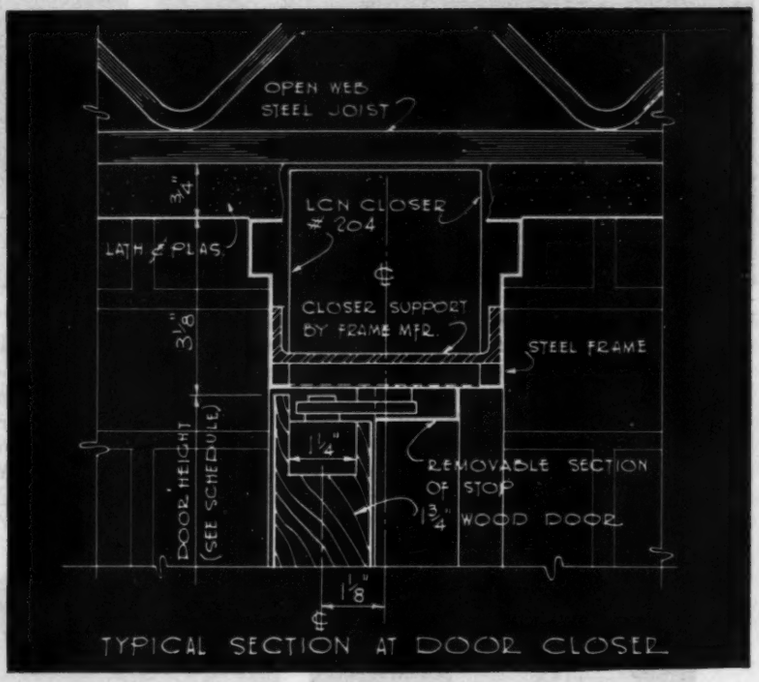
• *A split-type dumbbell rubber water stop* eliminates the need for slotting or split-bulkheading when forming structures where hydrostatic water pressure is involved. Available in 6- and 9-in. widths with one-half of the width split so that it may be fastened to the inside of the bulkhead, it comes in standard G.R.S. rubber, Neoprene, natural rubber or Geon Polyvinyl. *Servicised Products Corp., 6051 W. 65th St., Chicago.*

SUN CONTROL LOUVERS



• *Adjustable sun control louvers,* both vertical and horizontal, not only eliminate sky glare and reduce solar heat load but also provide exterior architectural effects. Aluminum frames and vanes, pivots and oil retaining bearings provide durability and ease of operation. All equipment is custom-built and is available with manual or motor operation. A solar time control unit, used in conjunction with the motor operator, is set to anticipate the sun's movement and automatically adjusts louvers to exclude direct sun at all hours. The louvers shown at left are in the Northwestern Mutual Fire Association building in Los Angeles, designed by Richard Neutra. *Lemar Mfg. Co., Box 352, Gardena, Calif.*

(*Continued on page 230*)



CONSTRUCTION DETAILS

for LCN Overhead Concealed Door Closer Shown on Opposite Page

The LCN Series 200 Closer's Main Points:

1. Efficient, full rack-and-pinion, two-speed control of the door
2. Mechanism entirely concealed; arm disappears into door stop on closing
3. Hydraulic back-check prevents door's being thrown open violently to damage walls, furniture, door, hinges, etc.
4. Hold-open (optional) set at any one of following points: 85°, 90°, 100° or 110°
5. Easy to regulate without removing any part
6. Used with either wood or metal doors and frames.

Complete Catalog on Request—No Obligation
or See Sweet's 1955, Sec. 17e/L

LCN CLOSERS, INC., PRINCETON, ILLINOIS



Perkins & Will, *Architects—Engineers*

MODERN DOOR CONTROL BY *LCN* · CLOSERS CONCEALED IN HEAD FRAME

HEATHCOTE SCHOOL, SCARSDALE, NEW YORK

LCN CLOSERS, INC., PRINCETON, ILLINOIS

Construction Details on Opposite Page

1 SINGLE 2 OR DUAL

GLAZING MOLDS

are interchangeable in Miller aluminum sliding glass doors without disturbing framing installation... permitting use of ¼" to 1" glass at same frame cost!

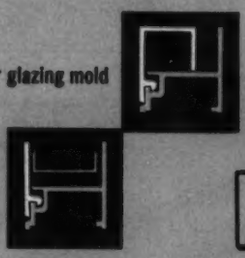


Kaiser Hospital, Fontana, Calif.



100% double sealed mohair pile weatherstripping and Alumilite finish (at no extra cost) are other all-weather advantages of these aluminum frames. These features—plus Miller's standard steel frames for single glazing and standard steel frames for dual—give you the most complete lines in the field. Write for literature—contact your Distributor. See Sweet's Arch. File (15d/MI).

aluminum frame uses either glazing mold



Miller

SLIDING GLASS DOORS, ALUMINUM OR STEEL FRAMED

Frank B. Miller Mfg. Co., Inc., 3216 Valhalla Drive, Burbank, California

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Both Underwriters' Laboratories and Factory Mutual Laboratories have approved Velocity Power ¼-inch threaded stud units for hanging pipe up to and including 3½-inch, and ⅜-inch stud units for pipe up to and including 5 inches in diameter. This approved holding power, *exclusive with Velocity Power stud units in the sizes indicated*, protects the quality of your job, and your reputation.

We'll be happy to tell you about these approvals in detail, and show you the many other features of the Velocity Power Driver that help you get more contracts, maintain profit levels, and do the job better, safer. Write for details.

There's no slow-down on those close-to-the-wall jobs. Spall-shield can be retracted, or a portion of the shield can be rotated out of the way. Quadrant marks provide accurate guide for stud installation.

VELOCITY POWER TOOL COMPANY
201 North Braddock Avenue
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For Greater Strength
Uniform Thickness and Color



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The First Fiberglas and Nylon Reinforced Plastic Panel Ever Produced

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After many months of research, FILON is now produced with Fiberglas and Nylon strands for greater strength and uniformity. Actual tests show that an 8 oz. per sq. ft. FILON panel can support over 200 lb. load per sq. ft. on a 4 ft. unsupported span. (U. S. Navy standards are only 100 lbs. per sq. ft.)

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Better impregnation and dispersion of pigments make FILON more uniform in thickness and color. Every FILON panel bears a label stating *type, grade,* and *color* ... your assurance of getting the quality you specify.

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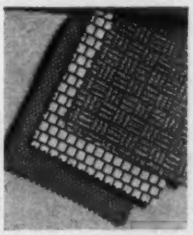
A|E PRODUCTS

(*Continued from page 226*)

FURNISHINGS



• Chairs of solid ash frames upholstered with an elastic webbing, and a nest of tables with intarsia inlaid tops, were introduced by *Fabry Assoc. Inc., 6 East 53rd St., New York City.* . . . Reversible sliding doors of teak and color in teak tops are combined with either oak or stainless steel legs for cabinets in the collection of *George Tanier Inc., 521 Madison Ave., New York City.* . . . International scenes done in a variety of colors and fabrics are the theme of *Waverly Fabrics, 60 West 40th St., New York City.* . . .



Four patterns are available in *Breathable Naugahyde,* an upholstery material of vinyl patterns applied to fabric manufactured by the *U. S. Rubber Co., Rockefeller Center, New York City.* . . . Drapery and upholstery designs in a wide color range on all-cotton, 48-in. crepe cloth are featured by *Desley Fabrics, 40 East 34th St., New York City.* . . . Vinyl plastic, fabric-backed wall covering is available in 16 varied patterns and color combinations, according to the *Velveray Corp., 15 West 34th St., New York City.* . . . Fire-resistant Dynel-saran drapery fabric is manufactured in sand, gray, green and maroon, 56 in. wide by the *Textile Fibers Dept., Carbide and Carbon Chemicals Co., 30 East 42nd St., New York City.* . . . Wallcovering designs of stone, woodgrains, bricks and fresco textures in a wide color range comprise the 1955 collection of the *Timbertone Decorative Co., Inc., 50 East 53rd St., New York City.*

(*Continued on page 232*)



. . . a distinctive new pattern in popular Micarta

In the refreshingly unique design of new MICARTA "Star Dust", there are opportunities to create striking decorative effects—on built-in furniture, counters, walls, dividers—wherever a surface must withstand the rigors of hard wear. And "Star Dust's" six warm colors —including gray and charcoal—let you achieve appealing color harmony in interiors as practical as they are beautiful. Your United States Plywood representative has samples, or write United States Plywood Corporation, 55 West 44th Street, New York 36, N. Y.

J-06596-C

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St. Lukes Hospital, Kansas City, Mo.

Only KoolShade Sunscreen could give this hospital the sun-relief it needed

Problem: The administration of St. Lukes Hospital, Kansas City, Mo., knew their drapes and furnishings were being damaged by the sun's heat and glare and that the staff's work was being increased. They were sure that patients' convalescence was being lengthened.

Approach: A study was made of every shading device that seemed feasible.

Solution: KoolShade Sunscreen was chosen because it offered the *combination* of advantages—all necessary—which *no* other device offered: it kept the sun's heat and glare *outside* with unsurpassed efficiency, admitted more beneficial light and allowed better visibility than any other efficient device, presented no fire hazard, no noise nuisance (in wind), and looked attractive and appropriate on the building. And of major importance was its sturdy, corrosion-resistant construction and long life.

Only KoolShade Sunscreen offers



- **unsurpassed shading efficiency** — keeps up to 87% of the sun's rays off windows during the hottest part of the day
- **80% clear visibility,** maximum glareless light
- **harmony with all architecture**
- **virtually no maintenance**—constructed of strong preoxidized bronze strips, wired and framed together, lasts for years, withstands hard blows
- **effective insect protection**—no other screens needed

Write for this Illustrated Bulletin

giving full details, showing why thousands of builders are installing KoolShade!



Distributor franchises still open in many communities for those who qualify.

KOOLSHADE

Sunscreen BW

REFLECTAL CORPORATION
A subsidiary of Borg-Warner Corp.
310 S. Michigan Ave., Suite 2808,
Chicago 4, Ill.



AE PRODUCTS

(*Continued from page 230*)

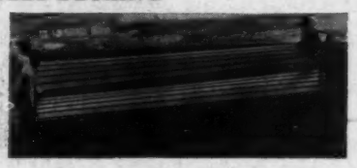
METAL-CERAMIC BOND

• *Porcenells* are thin coatings of ceramic materials bonded to any ferrous metal surface at moderate temperature. Besides providing a decorative and permanent protection against corrosion, they are said to offer abrasion resistance and to be virtually chip-proof. *Allied Porcenell, Inc., 851 So. Market St., Waukegan, Ill.*

ALUMINUM COATING

• *An aluminum coating* in the form of small shot, claimed to be as tough as three or four coats of paint, offers protection to metals, concrete, wood, plastics and other surfaces that dry to metal hardness and can stand temperatures up to 600 F. The coating is bonded to the surface with a vinylite resin and can be either brushed or sprayed on. *Woodhill Chemical Co., Cleveland, Ohio.*

STEEL DECKING



• *Steel decking,* 20 ft long by 30 in. wide, is available in 18-, 20- and 22-gauge thicknesses. Positive locking longitudinal joints are fully embossed to make them self-aligning. *Airtherm Mfg. Co., So. Spring Ave., St. Louis, Mo.*

SAWDUST BUILDING BLOCK



• *A sawdust block for building,* which can be cast on a standard concrete block machine, can be sawed and nailed. The new block, composed of planer shavings, sawdust, cement and diatomaceous earth, offers insulating and soundproof qualities and is extremely lightweight. It can be used for exterior as well as interior walls when sprayed with gunite or other impervious material. *Columbia Machine, Vancouver, Wash.*

(*Continued on page 236*)



N.A.H.B.
CONVENTION
Chicago, 1955

The talk of the show

Briggs Beautyware "stopped" the show in Chicago with a striking Coral and Gray exhibit featuring new design bathroom fixtures, a new line of color kitchen sinks and a wide range of styling for any type of home.

"Sell Faster with Color" was the Briggs exhibit theme. Architects, Builders, Jobbers and Plumbers responded by the thousands. They stopped, they looked, they asked for complete information about the great 1955 Beautyware line.

Modern contour design, new color styling, advanced engineering and the economy of the Briggs two-bath package, have made Beautyware the big favorite across the board. And, thanks to a complete national warehousing system, Beautyware is available everywhere in the full range of styles and colors—Coral, Pearl Gray, Sky Blue, Sea Green, Sandstone and White.

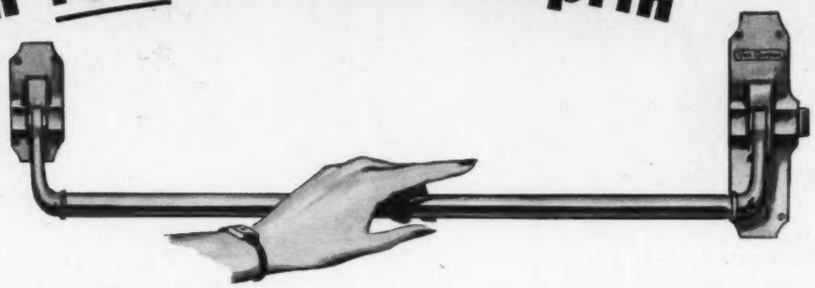
1955 promises to be a record year for residential building, and Briggs is honored to have Beautyware made first choice by so many leaders in the building industry.

Briggs Manufacturing Company, Detroit 26, Michigan

Two bathrooms—a must in every modern home

Beautyware by **BRIGGS**

You can rely on Von Duprin



to unlock any door . . . every time!



● Unfailing exit devices are a *must* in hospitals . . . and that makes Von Duprin the first choice among leading hospital officials and architects.

Precision-made Von Duprin devices respond instantly and positively—no matter how often or seldom they are used. They provide the operating ease so important to hospital routine . . . and the assurance of *performance* in case of an emergency.

Next time you design or remodel a hospital—or any other building, for that matter—be sure you provide "the safe way out," by specifying Von Duprin exit devices. If you'd like, a Von Duprin "Exit Specialist"—a factory representative or a selected builders' hardware distributor—will be happy to work with you in choosing the most practical installation. A post card or phone call will bring him your way!

VON DUPRIN DIVISION
VONNEGUT HARDWARE COMPANY
402 West Maryland Street
Indianapolis 9, Ind.

Von Duprin PANIC DEVICES ASSURE SAFE EXIT

Von Duprin Fire and Panic Exit Devices

J&L Junior Beams prove

economical, adaptable



at Orgill Brothers $2,000,000 warehouse

Five hundred and fifty tons of J&L Junior Beam roof purlins have been specified for Orgill Brothers new $2,000,000 wholesale hardware warehouse in Memphis, Tenn. Both architect and contractor agree that Junior Beams enabled them to save money on this 14-acre project and complete the job on schedule.

Architects W. C. Jones and W. C. Jones, Jr., chose Junior Beams because their physical characteristics permitted greater economy in design, allowed more head room, better clearance and thus provided a better stabilized building. In addition Junior Beam's light weight made for fast, easy handling during construction, as well as during hauling to the building site.

Clinton J. Wagner, Vice President of S&W Construction Company, contractors on the job, reported that "we found Junior Beams to be adaptable and economical for this type of construction. Deliveries were satisfactory and well ahead of schedule. This was a great factor in enabling us to complete the project on time."

Additional savings were outlined by B. S. Merrill, structural engineer for the architects. He said, "we had 6500 sprinklers to install and the use of Junior Beams effected considerable savings . . . I would estimate we would have had to put in 10 to 20 percent more heads if we had used some other joist and at $20.00 a head you can see what we saved."

Take a tip from the men who built Orgill Brothers Warehouse, Junior Beams are adaptable, rigid, shrinkproof, fire resistant, vermin-proof, and impervious to termites. Write for more information today. Our new booklet, *J&L Junior Beams*, shows how these modern structurals are being used as floor joists and roof purlins, with loading and spacing tables for various spans.



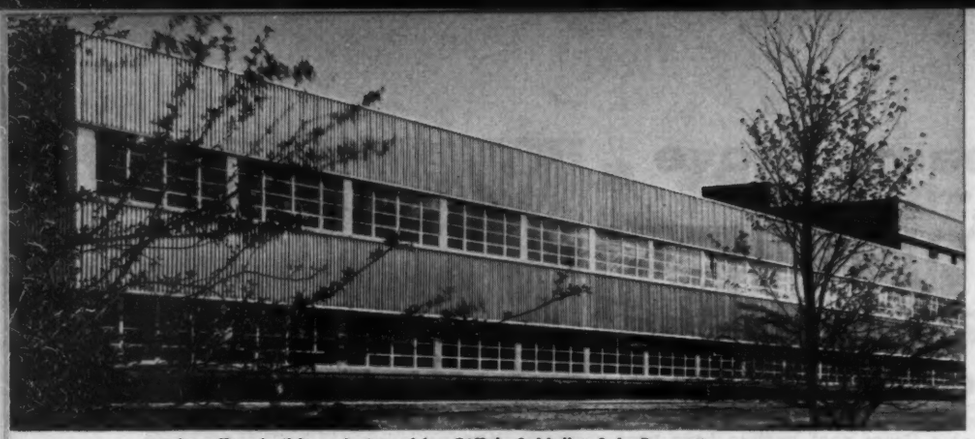


J&L STEEL

Jones & Laughlin

STEEL CORPORATION — *Pittsburgh*



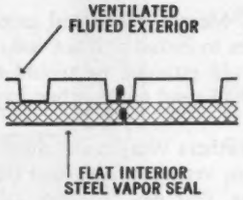


An office building designed by Giffels & Vallet & L. Rossetti, Associated Engineers and Architects, Detroit.

3 Good Technical Reasons For Specifying Robertson Q-Panels

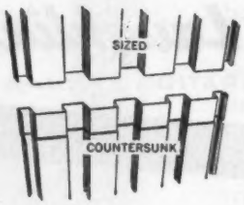
1

Continuous Sealed Joints The interlocking side lips on both the inner and outer surfaces of the panels are caulked to provide a continuous sealed joint. Thus, when the panels expand or contract, the joints do not separate but remain in contact with the caulking material. This efficient side joint effectively maintains the insulation qualities of the wall and prevents the infiltration of air, dirt and moisture.



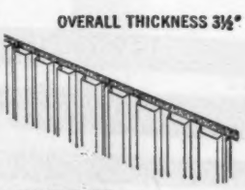
2

Flush Lap Joint Special conditions often make end-joints unavoidable. All standard Robertson Q-Panels are die-set and countersunk at the end lap, producing neat, almost invisible joints, with full insulation at that point. This feature eliminates the inefficient butt-joint with its unattractive through-wall flashing and consequent insulation loss.



3

Efficient Insulation The U-Value of an M-Type Q-Panel wall is .125 BTU per sq. ft. per hr. per °temp. diff., F. This was established by careful tests made at one of the nation's leading industrial research laboratories. Special attention was given to thermal conductivity at all critical points along the wall and the established U-Value is an average over a stretch of wall involving several side laps. Use the coupon to write for details.



H. H. Robertson Company

2404 Farmers Bank Building • Pittsburgh 22, Pennsylvania

In England: Robertson Thain Ltd., Ellesmere Port, Cheshire • In Canada: Robertson-Irwin Ltd., Hamilton, Ontario

Please send free information on Q-Panels.

NAME TITLE

FIRM

ADDRESS CITY

AE PRODUCTS

(*Continued from page 232*)

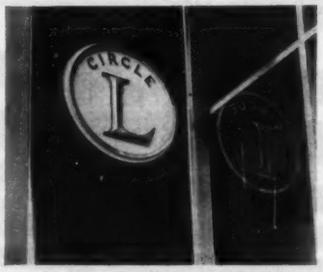
STORE IDENTIFICATION

• *Store identification* in today's shopping community entails more than just selecting and installing a sign. Especially in modern shopping centers at least three considerations are involved:

1. The sign must have the power to attract in a way that is in keeping with the character of the store.
2. It must also harmonize with the over-all architectural scheme of the shopping center.
3. It must comply with local zoning ordinances.



Plexiglas offers flexibility in sign fabrication so that all three requirements can be fulfilled. In addition it can diffuse light, so that when a sign is backlighted for nighttime identification, the effect is a bright glow. Bamberger's in Newark, N. J., uses a signature-type sign, as shown above. Plexiglas is produced by *Rohm & Haas Co., Philadelphia, Pa.*



Stainless steel signs contrast polished letter surfaces and frames with a background of rough, as-cast metal. Their ability to maintain original brilliance without corrosion or discoloration and with very little maintenance is desirable. In addition to stainless steel store signs, as shown above, stainless steel plaques, memorials and building identifications are produced by *Lebanon Steel Foundry, Lebanon, Pa.*

AIA PRODUCTS

MORE SIGNS

• A unique addition to the sign field is *Glo-Lel*, a 2-in.-square letter that clips onto a standard, tube-shaped fluorescent lamp. The multi-colored letters can be arranged on lamps to form changeable signs as well as window lighting. *Uni-Ventions Co., 303 Fifth Ave., New York, N. Y.*

WINDOW WALL UNITS





• *"Vision-Vent" window walls*, one of the latest developments in curtain walls, provide both exterior and interior finished walls complete with window and insulation. Designed to give architects free play, the units may be ordered with two of their three panels in glass and one in a porcelain-finished, insulated steel "sandwich," as in the photographs above. Or they can be had with solid glass panels, solid steel panels or with just one panel of glass. In photo 1, the proposed new office building for the Fram Corp. in Providence, R. I., steel panels under the windows will make a horizontal band running the length of the building. *Truscon Steel Div., Republic Steel Corp., 1064 Albert St., Youngstown 1, Ohio.*

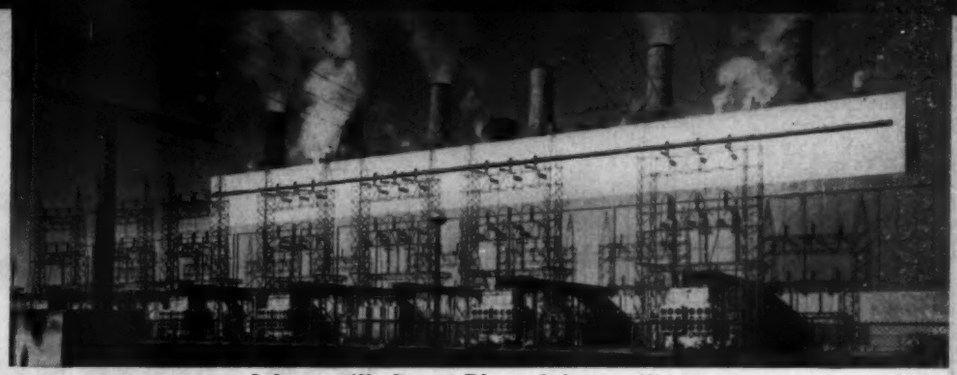
LAMP FREQUENCY CHANGER

• *A frequency changer* for operating fluorescent lamps from a 400-cycle power source produces industrial lighting of high brilliance and with virtual freedom from flicker and stroboscope effect, according to tests conducted by the manufacturer. Also revealed was the wide range of variance of brilliance possible by changing the size of ballast. The changer consists of an induction motor which drives a 400-cycle alternator available in ratings from 2 to 50 kw. *Bogue Electric Mfg. Co., Paterson, N. J.*

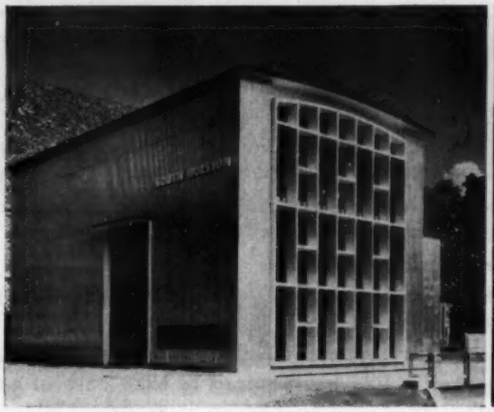
LIGHT TROFFER

• A 24-in.-wide *recessed troffer* in 2-, 4-, and 8-ft lengths has been developed for use in acoustic and plaster ceilings by the *Edwin F. Guth Co., 2615 Washington Ave., St. Louis, Mo.*

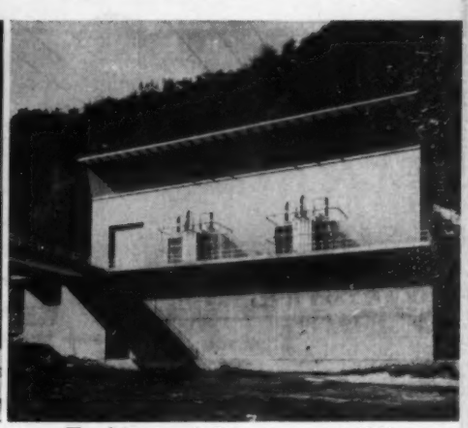
(Continued on page 241)



Johnsonville Steam Plant, Johnsonville, Tenn.



South Holston Project, Bristol, Tenn.



Turbine and Generator Building, Watauga Dam, Elizabethton, Tenn.

Robertson Q-Panels helped bring both beauty and utility to TVA installations

In TVA installations, as in power stations everywhere, Robertson Q-Panel walls are popular because they are practical as well as beautiful. Beyond good looks, here are some very practical reasons for specifying Q-Panels: 1. Q-Panels are permanent, dry and noncombustible, yet may be demounted and re-erected elsewhere to keep pace with expansion programs. 2. Q-Panels are light in weight, thus reducing the cost of framing and foundations. 3. Q-Panels have high insulation value . . . superior to a 12" masonry wall. 4. Q-Panels are quickly installed because they are hung, not piled up. An acre of wall has been hung in 3 days. For more good reasons for using Q-Panel construction, use the coupon below to write for literature.

Robertson

Q-Walls

a product of **H. H. Robertson Company**

2404 Farmers Bank Building • Pittsburgh 22, Pennsylvania

Please send your Q-Panel catalog.

NAME

FIRM

ADDRESS

HOW TO SELECT

for any requirement

The selection of a roof drain, at first appearing to be a simple matter . . . may become a difficult, complex and time-consuming problem because of the particular roof conditions or requirements.

Will a water insulated roof be required for air conditioning or cooling condenser water?

Will the roof be sloped?

Will the drains require adjustment to meet changes in thickness of roofing materials?

Will the roof be used for traffic or open-deck auto parking?

Will the roof drains be required to take care of excessive rainfall or cloudburst?

On many jobs it becomes a question of just how much time you can spend to determine the right drain for the purpose?

To facilitate the selection of the proper roof drain for a specific purpose, Josam offers the check list below. This shows the great variety of features available only in JOSAM drains and illustrates those features on the next page. After you have determined the features you need, your selection from the JOSAM line of hundreds of different types of roof drains and accessories, will give you a specially designed drain to meet your type of installation.

Or . . . a much quicker method of selecting roof drains is to ask the JOSAM representative in your territory. From his years of experience and his personal knowledge of the Josam line, he can quickly recommend the correct features for your needs, because JOSAM makes a roof drain for every need!

This service is yours for the asking. It costs you nothing, so why take less than the best when *the best costs no more*? Call JOSAM for all your plumbing drainage needs . . . and you'll get your job done right . . . to *your* satisfaction!

☐ Combined Dome Strainer and Sediment Cup	See No. 1, 4, 10	☐ Valleys and Gutters	See No. 10, 12
☐ Large Mushroom Type Dome	See No. 2, 5, 7, 8	☐ Drain with Integral Expansion Joint	See No. 8
☐ Promenade Top	See No. 3, 6	☐ Parapet Wall and Scupper	See No. 11
☐ Sloped or Pitched Roof	See No. 4	☐ Balcony and Cornice	See No. 10, 12
☐ Cloudburst Drain	See No. 5	☐ Adjustable Water Dam	See No. 9
☐ Auto Parking Area	See No. 3, 6	☐ Materials and Finishes	See No. 13
☐ Adjustable Top Drain	See No. 7	☐ Outlets	See No. 14

Josam

PLUMBING DRAINAGE PRODUCTS

STANDARD OF THE WORLD

JOSAM MANUFACTURING COMPANY

General Offices and Manufacturing Division • MICHIGAN CITY, IND.

REPRESENTATIVES IN PRINCIPAL CITIES

West Coast Distributor:
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Toronto, Canada

ROOF DRAINS

for any type roof . . .



1 Josam Series No. 410 roof drain with removable high dome and sediment cup.



2 Josam Series No. 4120 roof drain with removable mushroom type dome and side outlet.



3 Josam Series No. 4010 roof drain with square top and loose set grate for promenade deck.



4 Josam Series No. 4710 roof drain with pitched sump and flange for sloped roofs.



5 Josam Series No. 4140 torrential type roof drain with removable mushroom dome.



6 Josam Series No. 5460 roof deck drain with removable grate and sediment bucket for auto parking areas.



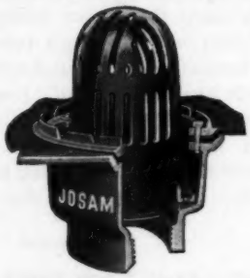
7 Josam Series No. 4550 roof drain with adjustable top and removable mushroom dome.



8 Josam Series No. 4410 combined roof drain and expansion joint, removable mushroom dome.



9 Josam Series No. 410-F roof drain with adjustable flooding water dam, for air conditioning purposes or cooling condenser water.



10 Josam Series No. 440 roof drain with removable dome and sediment cup, for narrow valleys and gutters.



11 Josam Series No. 4950-BN scupper and parapet wall drain, removable sloping brass grate and downspout.



12 Josam Series No. 4870-B sill drain, with removable brass dome and side outlet.

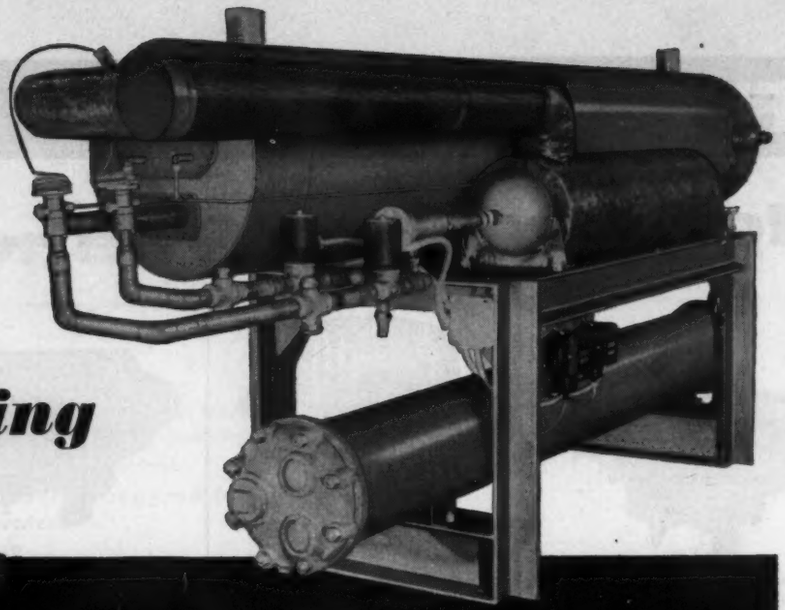
13 MATERIALS AND FINISHES — Josam roof drains regularly all furnished cast iron, lacquer finish unless otherwise described, optional materials galvanized iron, all brass, all Everdur, rough brass tops, chrome plated, polished or Everdur.

14 OUTLETS — Drains illustrated above furnished with outlets as indicated. Optional outlets, inside caulk bottom outlet, threaded hub or spigot side outlet.

For each of the many basic drain designs in the Josam line, there are scores of variations depending on the particular requirement. These are all clearly illustrated and described in the Josam Catalog "K" or Manual "SK" — the accepted authorities in the field. These are invaluable reference guides on all plumbing drainage problems. Send coupon if you do not have a copy of Josam Catalog "K" or Manual "SK".

JOSAM MANUFACTURING COMPANY
Dept. AR • Michigan City, Indiana
Please send free copy of Catalog "K" ☐
Manual "SK" ☐

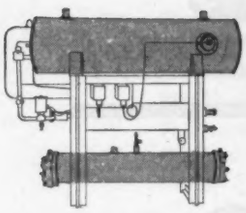
Name ..... Profession .....
Firm .....
Address .....
City ..... Zone..... State .....



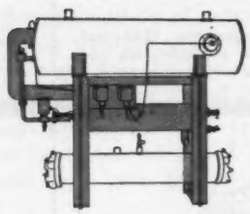
flexible air conditioning

IN A PACKAGE!

Acme FLOW-THERM® PACKAGED LIQUID CHILLER

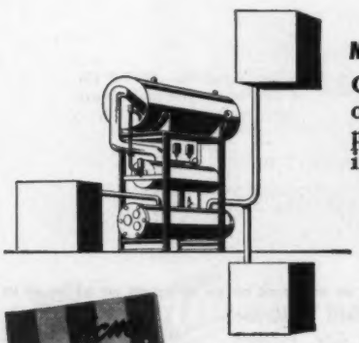


CHILLER AND COMPRESSOR are selected by Acme-simplified procedures to fit exact job requirements.



REFRIGERANT CONTROLS — and welded steel framework, complete the Acme Engineered Package.

For air conditioning systems or industrial processing applications in the range of 15 through 220 tons, here's the ideal "package." It's complete — less compressor — with all controls, piping and wiring factory installed and tested, ready for simple compressor connections. A truly flexible package, because the major components — famous Acme Dry-Ex Chiller with through tube construction, Shell-and-Tube Condenser(s) and Heat Exchanger are custom-selected for the exact capacity needed. Engineering time on a job is reduced appreciably, cost estimating is more accurate and installation is simple, fast and economical. Investigate Acme's Flow-Therm — both you and your client will benefit significantly. Units are ideal for Heat Pump applications.



MOUNT YOUR COMPRESSOR ANYWHERE — SAVE FLOOR SPACE AND HEAD ROOM.

Compressor of any make or model can be mounted either above, below or to one side of the Flow-Therm. The inherent compactness of the Acme components, together with their compact arrangement and close-connected piping, makes for space-saving size in all Flow-Therm units.



Write today for Acme's new catalog on the Flow-Therm Packaged Liquid Chiller.

ACME INDUSTRIES, INC.
JACKSON, MICHIGAN

Manufacturers of Quality Air Conditioning and Refrigeration Equipment since 1919

- Evaporative Condensers
- Cooling Towers — 2 to 70 tons
- Blo-Cold Unit Coolers
- Dry-Ex (direct Expansion, Liquid Chillers
- Shell-and-Tube, Shell-and-Coil Condensers
- Flow-Cold packaged Liquid Chillers to 15 tons
- Flow-Therm packaged Liquid Chillers to 220 tons
- Heat Exchangers
- Liquid Receivers
- Flow-Temp Heat Pumps
- Remote Room Conditioners
- Oil Separators

for help on your air conditioning or refrigeration problems phone your *Acme* engineer

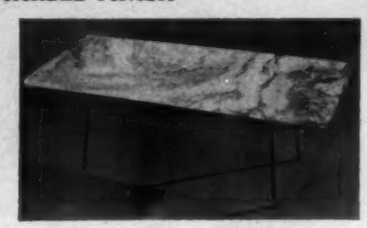


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ARIZONA, Phoenix
A. C. Baechlin, WH-5-6351
CALIFORNIA, North Hollywood
Dave Nurse, Erv Robart, Stanley 7-7131
CALIFORNIA, San Francisco
M. E. Bostock, A. J. MacJennett .....UN 3-2266
FLORIDA, Hollywood
Allen Dean.....2-4919
FLORIDA, St. Petersburg...C. W. McIntyre, 7-5778
GEORGIA, Atlanta
Walter Garrard, Leo Sudderth.....Exchange 8664
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MARYLAND, Washington 7, D. C.
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H. W. Meinholtz.....2-6976
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Wm. Woolley.....BRoadway 3082
PENNSYLVANIA, Philadelphia
Harold Margulis, Marc Sheffler..Evergreen 2-4500
PENNSYLVANIA, Pittsburgh
E. J. Busch.....Museum 3-2500
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T. J. O'Brien.....8-0339
TEXAS, Dallas
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Frank Ozanne.....SEneca 2377
WASHINGTON, Spokane
Hobart Teneff.....MAdison 9052
WASHINGTON, Tacoma
H. F. Warren.....MArket 4281
WISCONSIN, Milwaukee.....Broadway 1-1414
or Contact the Chicago Regional Office
CANADA, Montreal
Blair Livingston.....BElair 6102
CANADA, Toronto
Bernard Kaufman.....Murray 8185

AIA PRODUCTS

(*Continued from page 237*)

MARBLE FINISH



• *Cali-marb* combines Marco polyester resin and fiber glass with marble veining for use on furniture and interior and exterior walls. Resembling marble, *Cali-marb* is available in white, black, green and reddish brown and comes in stock sizes of 2 ft sq and 2 by 4 ft. *Mikon Inc., 742 W. 21st St., Norfolk, Va.*

BATHROOM INSTALLATIONS

• New designs in *bathroom installations* feature water closets and vitreous china lavatories that match steel bathtubs in design. The lavatories are available in decorator colors in two models — a ledge back and a shelf back — 19 by 17 in. or 22 by 18 in. One of the closets is a reverse trap model, the other a washdown type. *Ingersoll Products Div., 319 S. Michigan Ave., Chicago, Ill.*

WATER HEATER



• *A stone-lined automatic water heater* provides super-hot water up to 180 F from one outlet. A temperature selector at a mixer on top of the heater regulates the amount of cold water added to the super-hot to provide water at any desired temperature. *Hotstream Dual-Temp Heater*, available in 30-, 40- and 60-gal sizes, is made of heavy-gauge steel lined with aggregate stone. *The Hotstream Heater Co., 2363 E. 69th St., Cleveland 4, Ohio.*

(*Continued on page 244*)

new *Streamlined* weatherproof fixture

KILLARK *Dekorative Lite*

FINEST DECORATIVE LIGHT ON THE MARKET

for Beauty

Sleek, modern lines to catch the eye — instead of dust. Non-staining finish keeps its "like new" look for years and years.

for Function

Made of non-rusting aluminum alloy, finished in a neutral wrinkle-grey. Neoprene gasket seal for all weather. Easily relamped. Gives excellent light pattern.

Choice of 3 Styles



Killark ELECTRIC MANUFACTURING COMPANY

3940 EASTON AVE.
ST. LOUIS 13, MO.



1. Abraham Lincoln Houses

Six Good Reasons Why Pittsburgh

Were Used In These Recent

2. 100 Park Avenue



First, Steeltex, the combination welded steel mesh with its own built-in pliable form attached, requires no additional forms or reinforcement for giving shape and strength to concrete floors and roofs (see note below right).

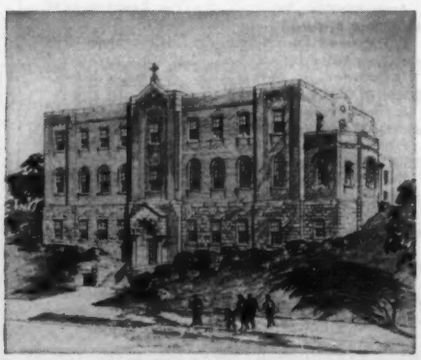
Second, Steeltex can be installed much faster than other types of forms and reinforcement for concrete floors.

Third, Steeltex saves concrete.

Fourth, Steeltex minimizes leakage,



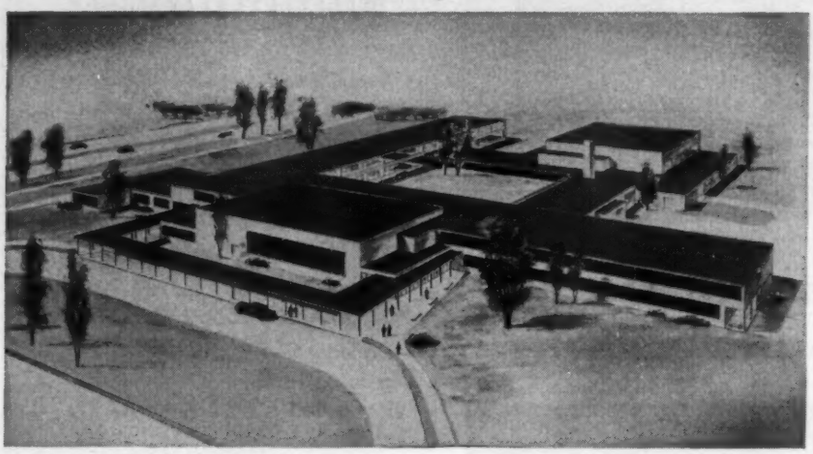
3. Franklin Simon Store



4. Immaculate Conception Convent



5. Nassau Terminal Building



6. Wantagh High School

Steeltex® And Welded Wire Fabric Buildings In New York City

saves clean-up expense.

Fifth, Steeltex assures a strong floor.

Sixth, Steeltex costs less than other reinforcing materials and systems.

On these two pages are pictured $34.2-million worth of recent buildings in New York City and suburbs in which Steeltex or Pittsburgh welded wire fabric or both were used to reinforce concrete slabs.

For details . . . **read story at right.**

1. Abraham Lincoln Houses, New York City. *Architect:* Skidmore, Owings and Merrill—Tandy and Forbes; *Structural Consultant:* William Hoffberg; *Contractor:* H. R. H. Construction Corp. This is one of 75 housing projects built by the New York City Housing Authority, whose reputation for sound and economical construction has attracted nationwide attention. It was built at a cost of $14.2 million and consists of 14 buildings housing 1,286 families (total population over 5,000—larger than many towns). In all buildings Steeltex or Pittsburgh welded wire fabric was used for floor reinforcing.

2. 100 Park Avenue, New York City. *Architect:* Kahn & Jacobs, New York, N. Y.; *Consulting Engineer:* Jaros, Baum, and Bolles, New York, N. Y.; *Contractor:* George A. Fuller Company, New York, N. Y. Built at a cost of $15 million, the building incorporates Pittsburgh Steel Products Company's welded wire fabric reinforcing throughout the floors.

3. Franklin Simon Store, Garden City, Long Island. *Architect:* Herbert Beidler, Chicago, Ill.; *Contractor:* Andrew Weston, Inc., Woodmere, Long Island, N. Y. This is a typical example of the Franklin Simon chain of shopping stores incorporating Steeltex floor lath in floors and roof. Steeltex is used widely for construction of suburban stores of this type.

4. Convent of the Immaculate Conception, Jamaica Estates, Long Island. *Architect:* Charles M. Spindler, Brooklyn, N. Y.; *Contractor:* Caristo Construction Co., Brooklyn, N. Y. This $600,000 convent has just been completed. Its construction incorporates Steeltex floor lath over steel joists in floors and roof.

5. Nassau Terminal Building, Hempstead, New York. *Architect:* Harold Carlson, Garden City, N. Y.; *Contractor:* Marvin Construction Corp., New York City; *Contractor Supervision:* Fred T. Ley & Co., New York City. This bus terminal, containing 33 stores, over sixty thousand square feet of office space, twenty-four bowling alleys, and accommodating twenty-three buses at one time, was built at a cost of $1,500,000. Steeltex floor lath was used over steel joists in the floors and roof.

6. Wantagh High School, Wantagh, Long Island. *Architect:* Frederic P. Wiedersum, Valley Stream, N. Y.; *Contractor:* Jonwal Construction Company, Inc., Mineola, N. Y. This Long Island high school, built at a cost of $2.5 million, was completed last fall. Steeltex floor lath was used over steel joists in the floors and roof.



NOTE: One man can roll out a 125' roll of Steeltex in a few minutes.

Send for your copy of "Pittsburgh Steeltex—Backbone Of Concrete, Plaster, Mortar."

STEELTEX®

a product of

Pittsburgh Steel Products Company

a subsidiary of

Pittsburgh Steel Company

Grant Building • Pittsburgh 30, Pa.

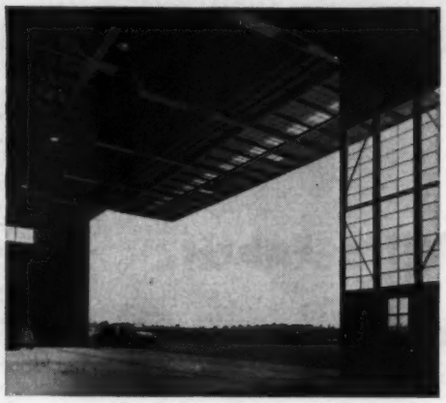
DISTRICT SALES OFFICES: Atlanta • Chicago • Cleveland • Columbus • Dallas • Dayton • Detroit • Houston Los Angeles • New York • Philadelphia • Pittsburgh • San Francisco • Tulsa • Warren, Ohio. **PLANTS:** Monessen, Pa. • Allenport, Pa. • Akron • Los Angeles • Unionville, Conn. • Warren, Ohio • Worcester, Mass.



Byrne Canopy Hangar Doors Meet Military Requirements

Byrne Vertical Lift Canopy Doors meet every specification demanded by military standards for a door that is structurally sound, fast-acting, weather-tight, dependable, safe and economical in operation. In addition, they allow full use of all space in the enclosed floor area. In fact, by forming canopies they actually increase the effective working space.

These canopy doors can be made in sections for any width of opening and may be operated individually or simultaneously. They are motor operated, upward-acting with balanced suspension through cables which transmit dead loads to compact counterweights.



Hangar for the Alabama Air National Guard has a Byrne Vertical Lift Canopy Door 78′ wide by 32′7″ high. The canopy door is flanked on both sides by two sliding doors 13′ wide—which are used to admit planes larger than usual.

Byrne Doors, Inc., with over 25 years experience in the development and manufacture of doors for the aircraft industry, can meet any requirements for hangar doors. The complete line of Byrne hangar doors includes the Vertical Lift Canopy, the Type B Canopy for openings up to 120′ wide by 30′ high, the Type K Canopy for heights up to 55′ with single sections up to 150′ wide and the Motorized Slide Doors. For complete information on the Vertical Lift Canopy Doors or other types available, check Sweet's Catalog or write direct to Byrne Doors, Inc.

Byrne has installed, or is currently installing, doors for the Air National Guard at:

Bangor, Maine
Reno, Nevada
Washington, D. C.
Montgomery, Alabama
Springfield, Ohio
Fort Smith, Arkansas
Niagara Falls, New York

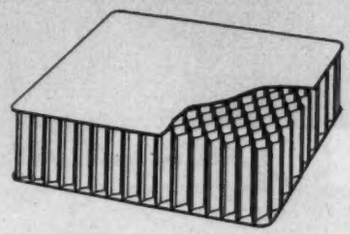
BYRNE doors, inc.

12400 E. 9 Mile Road, Ferndale, Detroit 20, Mich.
101 Park Ave., New York 17, N.Y.
Colorado Bldg., Washington 6, D.C.

AE PRODUCTS

(*Continued from page 241*)

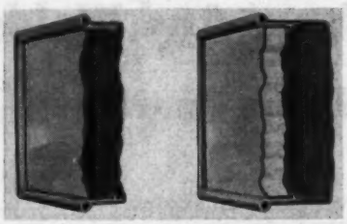
SANDWICH CHALKBOARD



• *A chalkboard* embodying a structural sandwich construction has a porcelain steel face and galvanized steel back separated by *Douglas Aircomb*, to a ½-in. thickness. It will not warp, buckle or delaminate, according to the manufacturer. *The Jecmen Co., 4608 W. 20th St., Chicago 50, Ill.*

PORCELAIN WALL PANELS

• *Davidson double wall panels* of porcelain fused to steel, with fiber glass insulation and air space, have an inside face panel which can be baked prime paint finish or porcelain enamel. Designed for use in any fenestration or spandrel system of curtain wall design, the panels are manufactured in sizes up to 12 sq ft with thicknesses from 1¼ to 3 in.



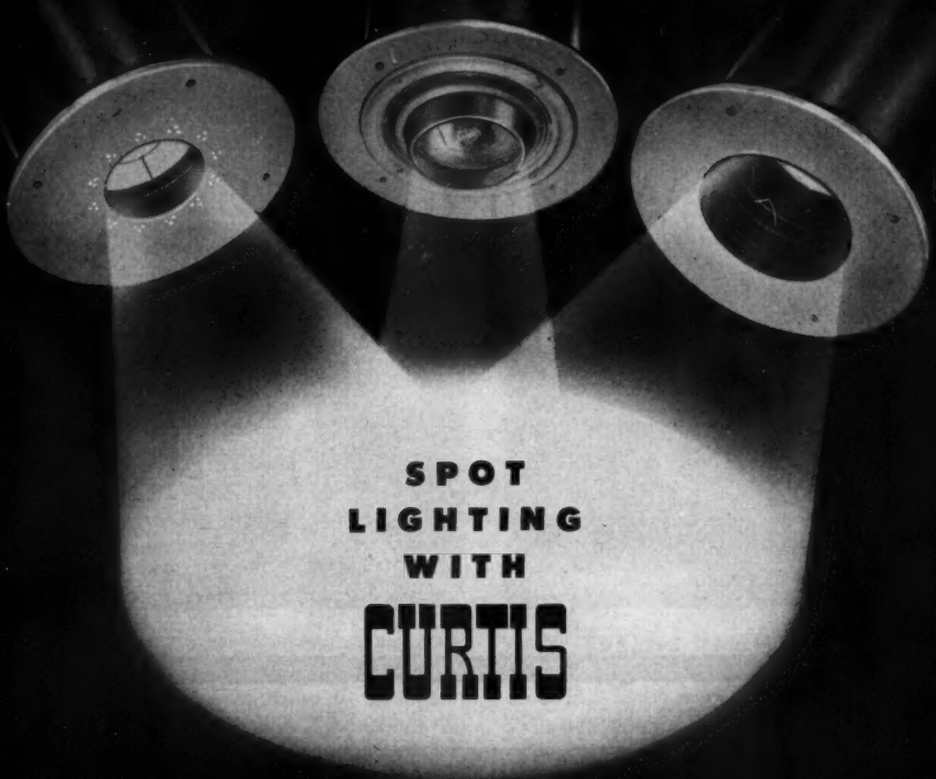
• Another Davidson double wall panel has shrinkproof, gypsum-base Vitrock backing, cast integrally with the outer panel in addition to the fiber glass and air space. It is available in sizes up to 20 ft sq with a minimum thickness of 2⅛ in. *Davidson Enamel Products, Inc., 1100 E. Kibby St., Lima, Ohio.*

• *Porcelain enamel on aluminum panels* are now being produced for building exteriors to create lightweight as well as colorful panels. *Seaporcel Metals, Inc., 28–20 Borden Ave., Long Island City 1, N. Y.*

ALUMINUM SHINGLES

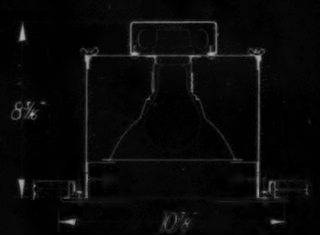
• *Self-aligning aluminum shingles* are lightweight and easy to install. Finished in wood-grain pattern in a color simulating slate, they won't warp, curl, rust, rot or cause stains. *Reynolds Metal Co., 2500 S. Third St., Louisville, Ky.*

(*Continued on page 248*)



SPOT LIGHTING WITH CURTIS

"VARI-SPOT"



CATALOG No. 2246

Curtis "Vari-Spot" is a shallow recessed downlight, utilizing one 100-watt inside frosted incandescent lamp. It is designed for use in residential and commercial interiors. An adjustable Alzak aluminum reflector permits the diameter of the circle of light to be controlled and changed as desired. Decorative holes in the finishing ring provide an attractive light pattern at the ceiling.

"PUNCHY"

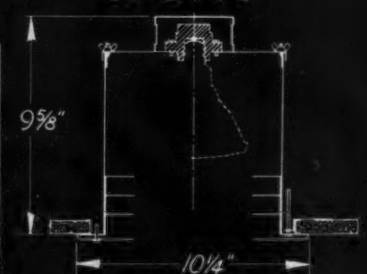


CATALOG No. 2240

Curtis "Punchy" is a shallow recessed adjustable downlight utilizing one PAR-38, Side Prong 150-watt projector spot or flood lamp. It is designed to provide punch lighting for counters, displays, show windows and other areas in store interiors.

"Punchy" features an exclusive aluminum gimbal ring which permits adjustment of the lamp to any angle 0° to 35° from the vertical, and 0° to 360° horizontal.

"SPOTTY"



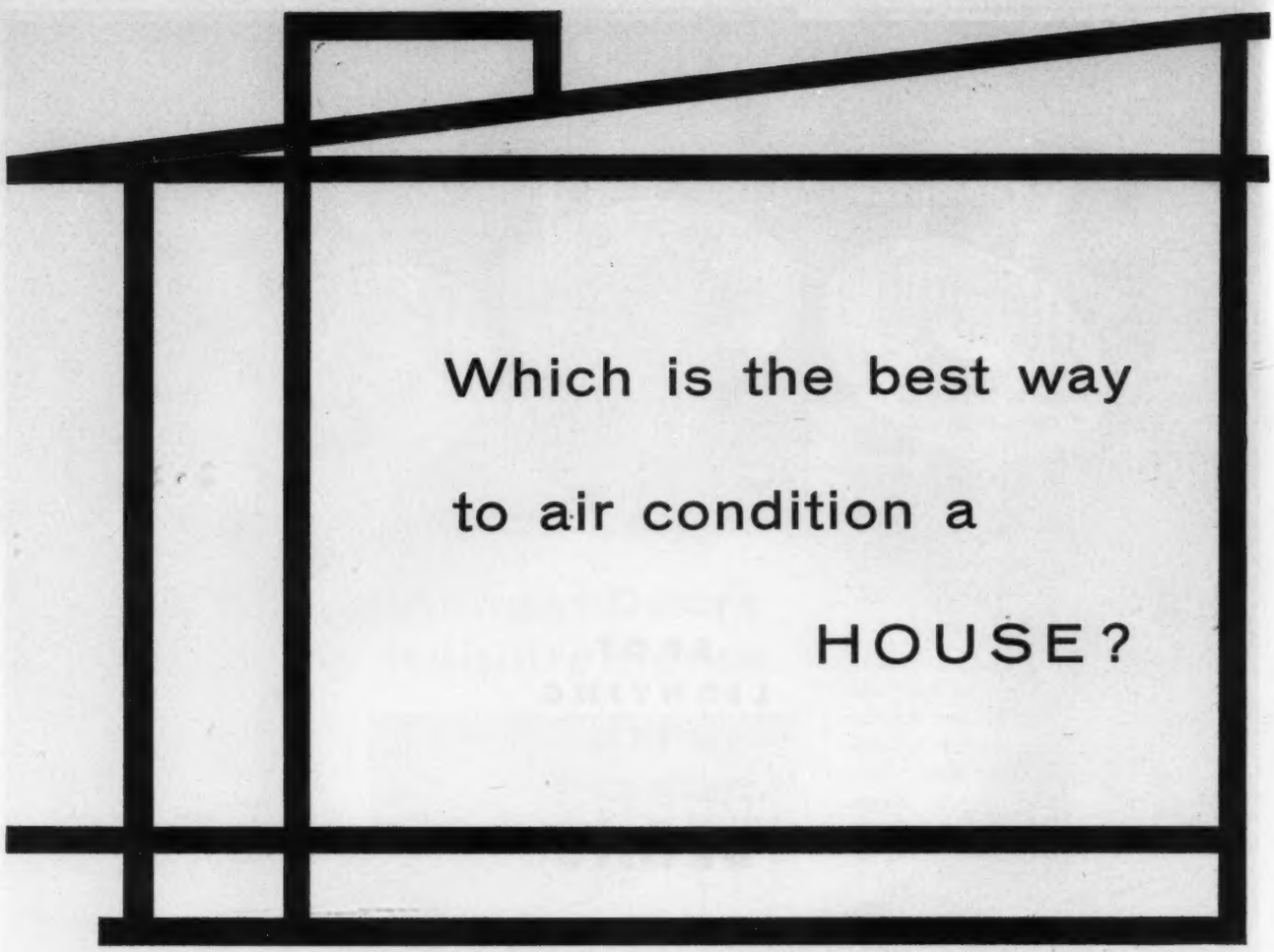
CATALOG No. 2244

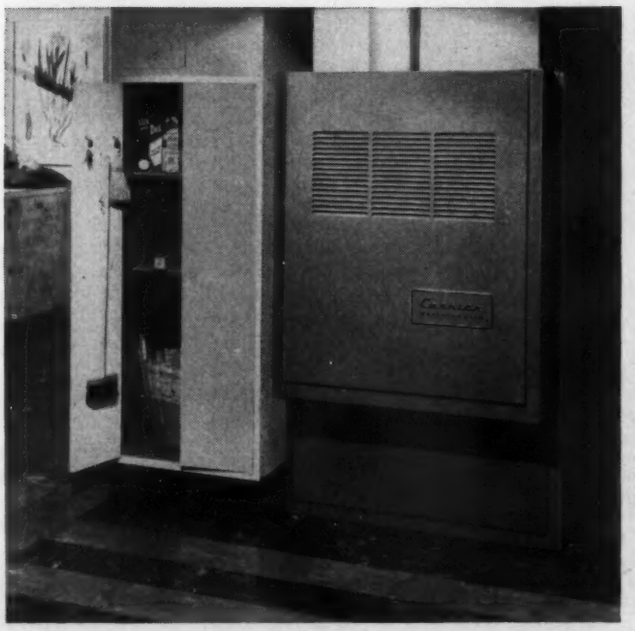
Curtis "Spotty" is a shallow recessed fixed downlight utilizing either one PAR-38 or R-40 screw base 150-watt spot or flood lamp. It has wide application for accent, supplementary and general lighting.

Three horizontal steel baffles, an integral part of each unit, are designed and positioned to provide an exceptionally low-brightness incandescent unit at normal viewing angles.

WRITE FOR FREE DESCRIPTIVE LITERATURE

Curtis Lighting, Inc., 6135 W. 65th Street, Chicago 38, Illinois





WITH A HEATING AND COOLING UNIT ALL-IN-ONE? The Carrier Year-round Weathermaker fits in only 10 sq. ft. of floor space. It burns gas or oil, cools electrically. It is suitable for installation in attic, basement or closet. It is ideal for new homes. Or it may be used to replace an antiquated furnace in a home which is being modernized. Air-cooled models are available.



WITH COOLING ADDED TO A TOP-DELIVERY FURNACE? This Carrier Conversion Weathermaker adds on to the top of any standard warm air furnace. It's ideal for a basement installation like the one illustrated. The section on top of the furnace contains a cooling coil. Small refrigerant lines run from it to an air-cooled refrigeration section located anywhere outdoors.



WITH COOLING ADDED TO A COUNTER-FLOW FURNACE? This Carrier Conversion Weathermaker fits under any counter-flow furnace. Naturally, it's ideal for any warm air perimeter system . . . particularly when the ducts are in the floor slab itself. A separate, compact refrigeration section needs no water for cooling and it may be located in the yard, the garage or carport.



WITH COOLING ADDED TO A HORIZONTAL FURNACE? This Carrier Conversion Weathermaker pairs happily with any horizontal heater or will fit in a horizontal supply air duct. It may be installed in the crawl space, as shown, or in the basement or attic, as you prefer. With the air-cooled refrigeration section located outdoors, Conversion Weathermakers are notably quiet.



WITH COOLING ADDED TO WET OR RADIANT HEAT? The new Carrier Summer Weathermaker comes complete with its own fan and filter section. The package you see in the picture performs a complete summer air conditioning function. It is so compact it may be located centrally with a short run of duct . . . and with the air-cooled refrigeration section remotely located.

Carrier is the quickest way to the right answer

JUST 1–2 AND THE JOB IS THROUGH!

Carrier has *all* the ways to air condition *any* job—and all Carrier equipment is engineered to the same uniform standard. So short-cut hours of selection by (1) using the Carrier line as your shopping guide and then (2) comparing values.

Get in touch with your Carrier dealer or distributor. He's listed in the Classified Telephone Directory. Or write to us directly. Carrier Corporation, Syracuse, New York.

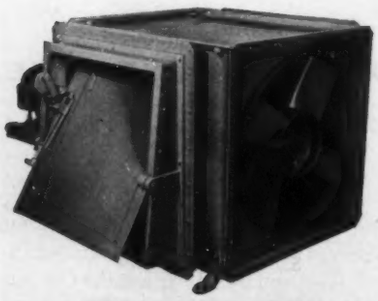
Carrier

air conditioning • refrigeration • industrial heating



"...Let's cut this stack off here and put a Wing Draft Inducer on the boiler...We'll save the cost of the chimney, have better draft and a better looking building."

If you are building or rebuilding or increasing the size of your boiler plant, a costly, tall chimney can add considerably to the expense. And a well planned architectural design can be ruined with an unsightly, towering stack.

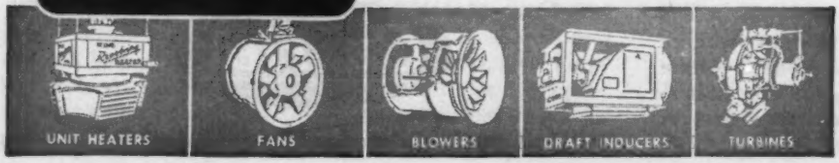


WING DRAFT INDUCERS eliminate this problem, providing positive, adequate, uniform draft regardless of surrounding conditions, or variable weather. They cut operating costs too, by giving higher CO_2's. Smoking is reduced or eliminated. Higher boiler capacity is possible.

Write for Bulletin I-52

Wing

L. J. Wing Mfg. Co.
151 Vreeland Mills Road
Linden, New Jersey
Factories: Linden, N. J. and Montreal, Can.



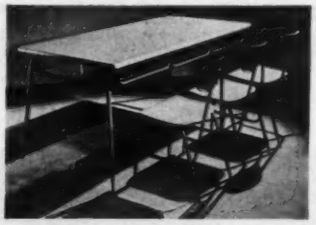
A/E PRODUCTS

(Continued from page 244)

NEW SCHOOL FURNITURE



• *A movable schoolroom desk,* combining a seat and die-formed book-box, features an adjustable metal and plastic top. The *Amerex* top, consisting of a hard-core plastic panel and steel frame locked together by a banding of hard aluminum alloy, provides resistance to wear and defacing by pencils and similar instruments. *American Seating Co., Grand Rapids, Mich.*



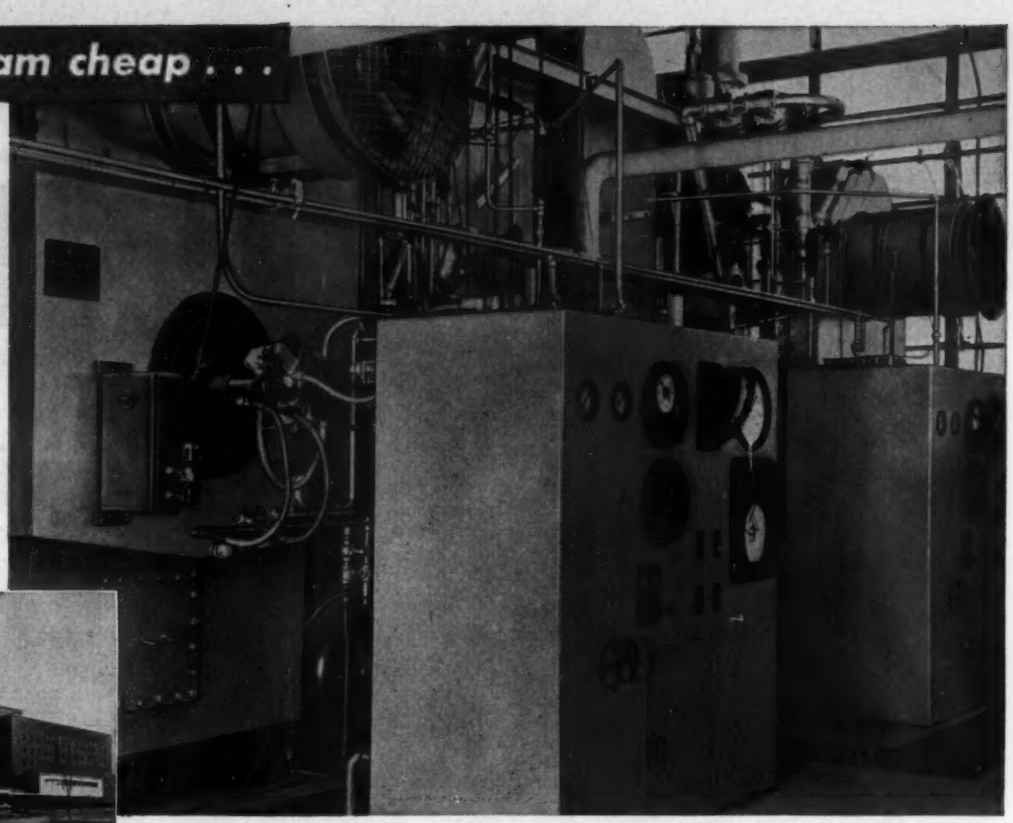
• *Movable school furniture* in a variety of colors has been designed by Russell Wright. The desk and chair combinations have tubular steel legs and framework, contour chair seats and wood, melamine plastic tops. *Shwayder Bros., Inc., Chicago, Ill.*



• *Virco tubular steel furniture* for schools and colleges has Vircolite plastic tops, said to be mar-proof and stain-proof. *Virco Mfg. Co., Beverly Hills, Calif.*

(Continued on page 250)

keeping steam cheap . . .





Designed by Albert Kahn Associated Architects and Engineers, Detroit.

These two Type FM, B&W Integral-Furnace Boilers, now serving the completed hospital, will eventually provide steam for most of the buildings in the planned medical center.

Detroit's New SINAI HOSPITAL

Chooses B&W Type FM Boilers

Recently opened, the 211-bed Sinai Hospital—affiliated with the Jewish Hospital Association of Detroit—is the first completed unit of a projected, modern medical center which will eventually include outpatient facilities, a school of nursing and dormitory, convalescent building, physicians' building, and additional patients' wings.

To assure efficient, economical steam generation, and to speed and simplify construction of the hospital's plant, two B&W Integral-Furnace Boilers, Type FM, were installed and are currently supplying steam for heating, laundry, cafeteria, kitchen, and other service requirements. Chosen instead of larger units which would have required costly field erection and close operating supervision, the compact, shop-assembled, oil-fired Type FM Boilers—each having a steam capacity of 15,000 lb per hr—were delivered "ready-to-go", complete with firing equipment and controls . . . required nothing more than skidding into position and hooking up of service connections.

Selected with future requirements also in mind, the two B&W FM units will serve most of the planned structures. A third boiler will be added as the project nears completion. At present, one unit is sufficient to meet all normal loads, so the two boilers are used alternately. The FM units are being operated at 100 psi for laundry requirements, while a system of valves reduces the generated steam to 2, 5, and 50 psi and regulates it for various services in the boiler room as well as other parts of the hospital.

Detroit's new Sinai Hospital is typical of hospitals in various parts of the country which have found the type FM Boiler ideal for their requirements.

This popular B&W unit is suitable for a wide range of industrial, commercial, institutional, and other classifications . . . is available in standard sizes for loads ranging from 2900 to 40,000 lb of steam per hr, at pressures to 235 psi . . . is already in service or on order for a total steam capacity of over 10,000,000 lb per hr.

COST-SAVING FEATURES

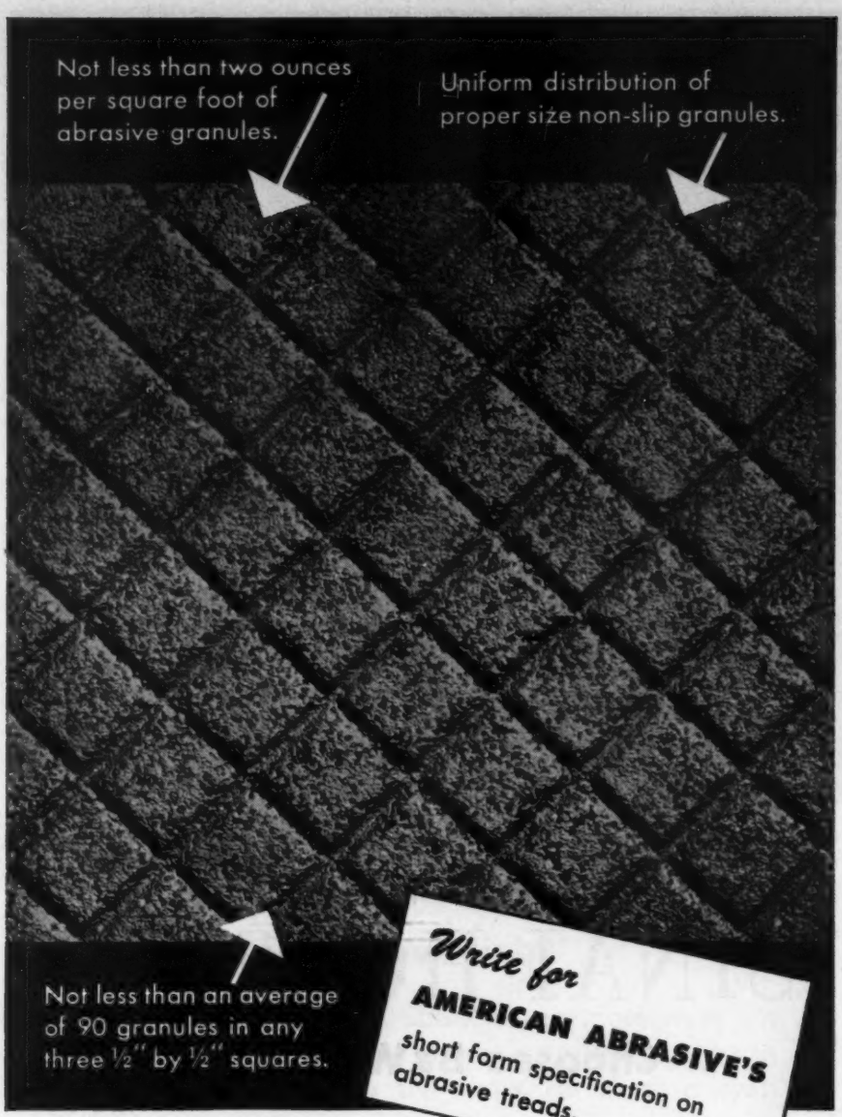
- Saves Erection Time and Cost
- Meets Wide Range of Service
- Handles Quick Load Changes
- Fast Steaming
- Low Maintenance
- Easy Accessibility
- Burns Oil and/or Gas
- Saves Fuel
- Saves Space
- Safe, Automatic Operation

For a detailed, illustrated description of how the cost-saving features of this B & W unit can benefit you, write for Bulletin G-76A. The Babcock & Wilcox Company, Boiler Division; 161 East 42nd Street, New York 17, N. Y.

BABCOCK & WILCOX

BOILER DIVISION

G-625



This Unretouched Photograph Proves the Quality of FERALUN

This is an unretouched photograph of a Feralun tread taken after acid treatment. (Paint is removed and acid is used to eat away the metal base so as to isolate the actual abrasive content of the tread.) Note the full and even distribution of abrasive — for greater safety, longer wear. In fact, American Abrasive has set the quality standards shown above. That's why Feralun abrasive treads cannot be equalled.

Feralun has provided lasting safety — free from maintenance for the past 35 years. Available as treads, thresholds, floor plates and elevator sills. Also in Bronzalun, Alumalun and Nicalun. See Sweet's Catalog 1955—12b/Am.

AA 120

AMERICAN ABRASIVE METALS CO. • IRVINGTON 11, N.J.

AE PRODUCTS

(*Continued from page 248*)

STEEL BAR JOISTS



• *Steel bar joists* used for floor and roof construction result in lightweight, economical and fire-resistant floor and roof supports. Joists are supplied fabricated to order, according to building plans. *Joseph T. Ryerson & Son, Inc., Box 8000-A, Chicago 80, Ill.*

LAMINATED WOOD STRIPS



• *Doweloc laminated wood* for walls, roof decking and floors consists of various lengths of tongue-and-groove hardwood strips fastened together with spiral steel dowels spaced on 12-in. centers. Grain kiln-dried oak, hickory, beech, birch or hard maple lumber, made in 12-in. widths and in thicknesses of 1, 1½ and 2 in., can be cut in any length from 6 to 60 ft long. *Edge Grain Timber Products, Inc., Huntington Bank Bldg., Columbus 15, Ohio.*

CLOCKS



• *Floor, table and wall clocks* of contemporary design feature new materials, contrasting faces and circular and angular shapes. A key-wound, 8-day wall clock, covered in monk's cloth, is lightweight and hung by a bracket concealed in back. *Herschede Hall Clock Co., Cincinnati, Ohio.*

(*Continued on page 254*)

FORMICA
Reg. U. S. Pat. Off.

...Undergraduate in the School of Hard Knocks

FORMICA long ago earned its master's degree in the rugged course for survival against exposure to the eating, drinking and smoking public. But despite the liberal education already weathered, Formica continues its studies and leads its class.

Only Formica offers such a combination of features with both aesthetic and practical appeal.

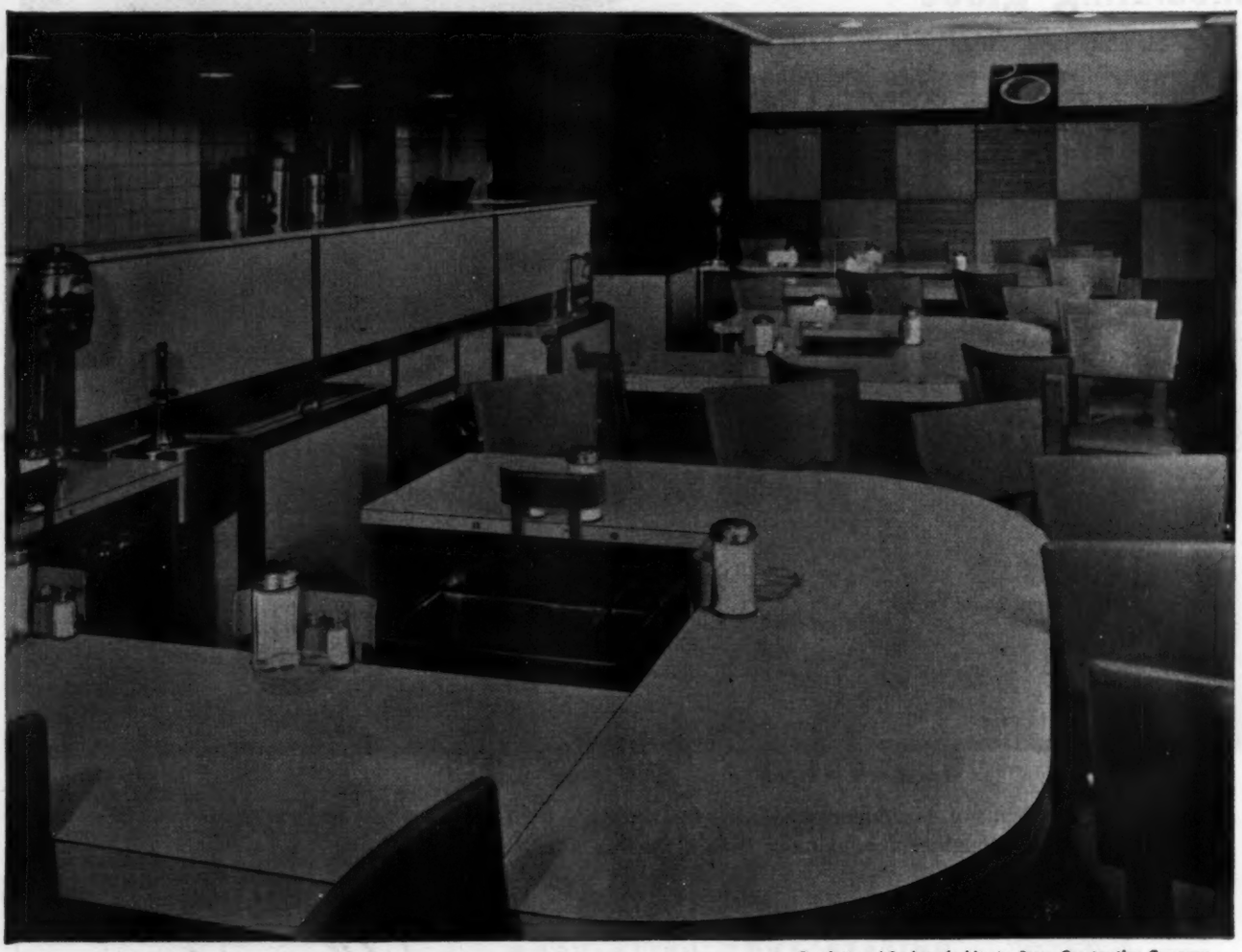
Formica in all its beautiful color patterns and wood grain finishes is warm and pleasant to the touch. Its tough, smooth surface is unbroken by germ-catching grout lines. Its unfading colors wipe clean year after year with only a damp cloth—never rot or need painting or refinishing.

The use of Formica is well justified on any surface, vertical or horizontal, that is exposed to heavy, human traffic.

See Sweet's Architectural File $\frac{13\,a}{Fo.}$

THE FORMICA CO., 4632 Spring Grove Ave., Cincinnati 32, Ohio

In Canada: Arnold Banfield & Co., Ltd., Oakville, Ontario



Garriott and Becker, Architects; Brose Construction Company

• DEMAND THIS CERTIFICATION . . . .

This mark certifies genuine

REMOVE WITH SOAP AND WATER

Beauty Bonded FORMICA Reg. U. S. Pat. Off.

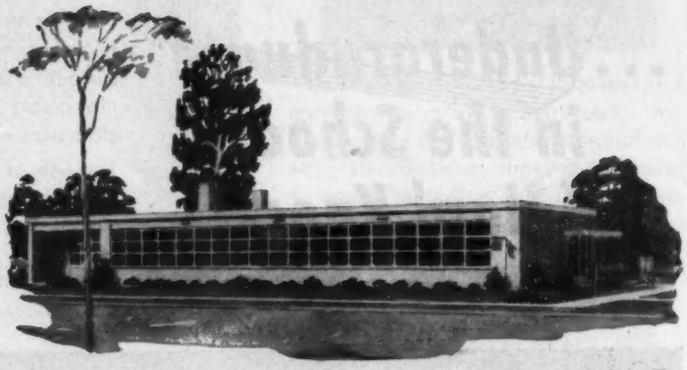
Guaranteed by Good Housekeeping

Pays in Performance

Seeing is believing. If this wash-off identification is not on the surface, it's not FORMICA.

Architect's Office proves the "MONEY" values...

"Engineering data shows heat loss is reduced approximately 18% by the use of *Thermopane*®, thereby reducing the size of the heating system required and also gas bills."



the "HUMAN" values... of Thermopane insulating glass

"Abundant north light, a draft-free warm area near the north wall and a quiet building on a relatively busy thoroughfare are conditions the firm desired and met with the design used. We find the building almost completely free of outside noise of any sort, including wind."



These are the comments of Sanzenbacher, Morris & Taylor, Toledo architects and engineers, after more than a year in their new offices.

Measure *Thermopane's* value for its dollars-and-cents savings. Assess its intangibles . . . the better working conditions, the good will of employes. Then figure your next job both ways—with single glass and with *Thermopane* standard sizes. *Thermopane* is an investment that pays off during the life of the building. *®

LOF GLASS

Thermopane

INSULATING GLASS

LIBBEY·OWENS·FORD GLASS COMPANY

608 Madison Ave., Toledo 3, Ohio





Now every room and office can be comfortable



Iron Fireman SelecTemp heating has a thermostat in every room

The *ultimate* in heating comfort—*a thermostat* in every room—is both simple and practical with the Iron Fireman SelecTemp heating system. Occupants of each room or office can select any temperature desired, at any time. Rooms stay at the selected temperatures. Each room unit automatically compensates for heat gains and losses caused by changes in outdoor temperature, cold winds and warmth from the sun—increasing or decreasing heat output.

SELECTEMP HIGHLIGHTS

THERMOSTAT IN EVERY ROOM. Temperatures can be varied in every room to fit the "activity plan" and personal preference of the occupants.

MODULATED HEAT. Air circulation is continuous. Both temperature and volume of air are automatically modulated, as required to offset heat loss from room.

FILTERED, CIRCULATED AIR. Individual room air circulation prevents transmission of odors or bacteria from other rooms. Air is cleaned by a spun glass filter in each room unit. Filtered outside air can be introduced if desired.

BOILER LOCATION. Boiler can be placed in any desired location, with proper distribution of heat to every room. Year-around domestic hot water coils available.

LOW POWER COST. No electricity required to operate circulating fans. Nonelectric thermostats.

LOW INITIAL COST. Easily installed in either new or old construction. Small soft copper tubing (¼ inch I.D.) carries steam to individual room heater units. Return lines are ⅛ inch. Substantial savings in installation costs.

LOW FUEL COST. Temperature easily reduced in unused rooms. Also eliminates overheating.

AUTOMATICALLY BALANCED. No special adjustments of dampers, valves or orifices required to balance heating system. Each unit continuously regulates heat needed for each room. Automatically compensates for external heat sources such as fireplace or solar heat, without affecting temperatures of other rooms.

ECONOMICAL INSTALLATION AND OPERATION

Regardless of the type or size of structure; office building, hotel or apartment house, school, hospital, or house, SelecTemp heating can be economically and efficiently installed. Flexible copper tubing, smaller than your little finger, carries low pressure steam to each room unit.

In addition to individualized heating comfort SelecTemp brings substantial operating savings. The fuel waste resulting from overheating (symptom: occupants open the windows), and the unnecessary heating of unused space, is eliminated. A fan in each room unit, operated by a steam turbine, continuously circulates filtered warm air. No electricity is used for fans or thermostats.

ASK FOR FULL INFORMATION

Before choosing a heating system for any building or residence, whether new construction or being modernized, it will pay you to get the facts about the Iron Fireman SelecTemp—a completely new concept in heating practice. Just mail the coupon or write.

Iron Fireman®

SelecTemp®

MODULATING ZONE HEATING



Send for free booklet

IRON FIREMAN MANUFACTURING CO.
3080 West 106th Street, Cleveland 11, Ohio.
In Canada, write to 80 Ward St., Toronto, Ontario.

Send literature on Iron Fireman SelecTemp heating.

Name_____

Address_____

City_____ State_____

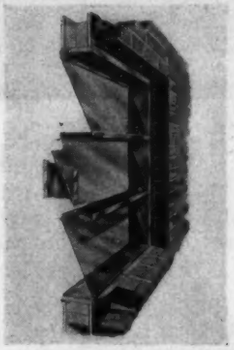
(*Continued from page 250*)

WINDOWS AND EQUIPMENT

• A *Thermopane insulating glass window* shaped to conform with the gabled end of hipped-roof buildings is now available providing none of the angles of the window opening is less than 45 deg or any one edge less than 8 in. The use of the five-sided unit in the opening under the gable eliminates the need for sash members or mullions. *Libby-Owens-Ford Glass Co., Nicholas Bldg., Toledo 3, Ohio.*



• *"Tilt-O-Matic"* aluminum combination storm-screen windows feature triple-track construction to facilitate panel movement for cleaning and storage. Three channels, one for each panel and screen, make each unit free-running and self-storing. An adjustable lock provides burglar-proof locking when closed and holds the open window or screen locked in any position. *Air Master Corp., 20th and Allegheny Aves., Philadelphia 32, Pa.*



• *An all-aluminum window*, rainproof while open to ventilation, is designed for residential and institutional construction in regular window openings and picture windows. Reportedly simple to install, a portion of its panels of glass remain stationary, while other panels can be opened at will. *Solar Corp., Fort Worth, Texas.*



• *Dura-seal* combines weather stripping and sash balance for weather protection of wood windows. Operation is silent due to four counterbalancing springs in each window which are specially coated and processed. *Zegers Inc., 8090 S. Chicago Ave., Chicago 17, Ill.*

• The *Weather-Guard* sun-operative device raises and lowers window awnings automatically. A timing device, sensitive to changes in the sun's rays, activates an electric eye which regulates the awning. *Micro-Moisture Controls, Inc., 22 Jericho Turnpike, Mineola, N. Y.*

(*Continued on page 258*)

schools



Serve more pupils

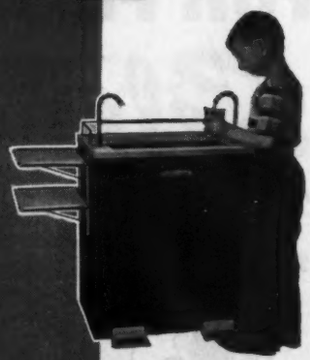
MORE EFFICIENTLY

with Halsey Taylor Coolers



CAFETERIA COOLER

with splash-proof cast-iron porcelain enameled top, chromium-plated trim, push-back glass fillers.



LO-LEVEL COOLER

..just the right height for "the small fry." Foot-pedal operation promotes convenience and speeds serving.

Active, impatient pupils... boundless delay and confusion in the cafeteria... unless it is well organized! One of the best methods of expediting servings is to install Halsey Taylor dependable, efficient coolers.

For these modern coolers are designed for the exigencies of every-day school service, built to perform dependably day after day and to provide positive maintenance economy!

They are available in many types, some with two projectors, others with two glass-fillers, or in models with a combination of both, and with foot-operated pedals if desired. All have the famous Halsey Taylor automatic stream control and two-stream projector.

Ask for latest literature, describing coolers as well as our complete line of fountains.

The Halsey W. Taylor Co.
WARREN, OHIO

HALSEY TAYLOR

AS-41

FIRST IN THE FIELD

JUMBODUCT

INDUSTRIAL UNDERFLOOR RACEWAY

APPROVED BY UNDERWRITERS' LABORATORIES, INC.

The Heavy-duty System for Modern Plant Wiring

National Electric JUMBODUCT offers industry three times the capacity previously available, freedom from the hazards of overhead wiring, *plus* outstanding economy. It's designed to provide readily accessible electrical distribution for industrial locations at a minimum investment.

You'll find a JUMBODUCT specification means:

Plenty of Capacity

4" x 4" cross section provides adequate room for electric wiring to banks of heavy production equipment.

Efficient Power Distribution

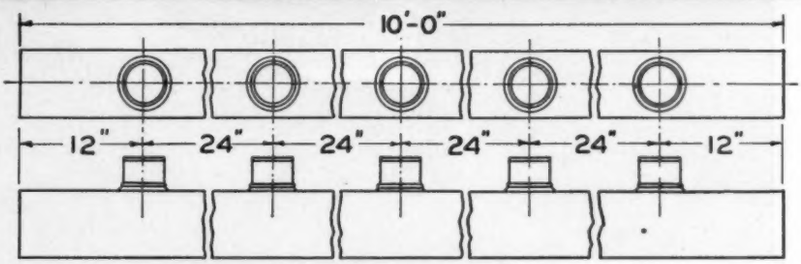
2" pipe threaded outlets every 24" permit exact location of equipment for most efficient production layout.

Low Cost

Furnished in easy-to-handle 10' lengths (complete line with junction boxes and a full complement of fittings), JUMBODUCT can be quickly installed in the same simple manner as standard Nepcoduct.

Close proximity of inserts to finished floor makes access quick and economical. Investment in conductors is limited to today's need with ample area for tomorrow's expansion.





INDUSTRIAL NEPCODUCT—CAT. NO. 11055

Safety

JUMBODUCT, protected against corrosion by Sherardizing plus a baked-on coating of acid-resisting enamel, is a completely grounded all-steel electrical system for protection of personnel and equipment.

Get the details on National Electric's newest all-steel, completely grounded industrial underfloor raceway. Write today for a free Engineering Data Book on NE JUMBODUCT.

EVERYTHING IN WIRING POINTS TO

National Electric Products

PITTSBURGH, PA.

3 Plants • 8 Warehouses • 34 Sales Offices



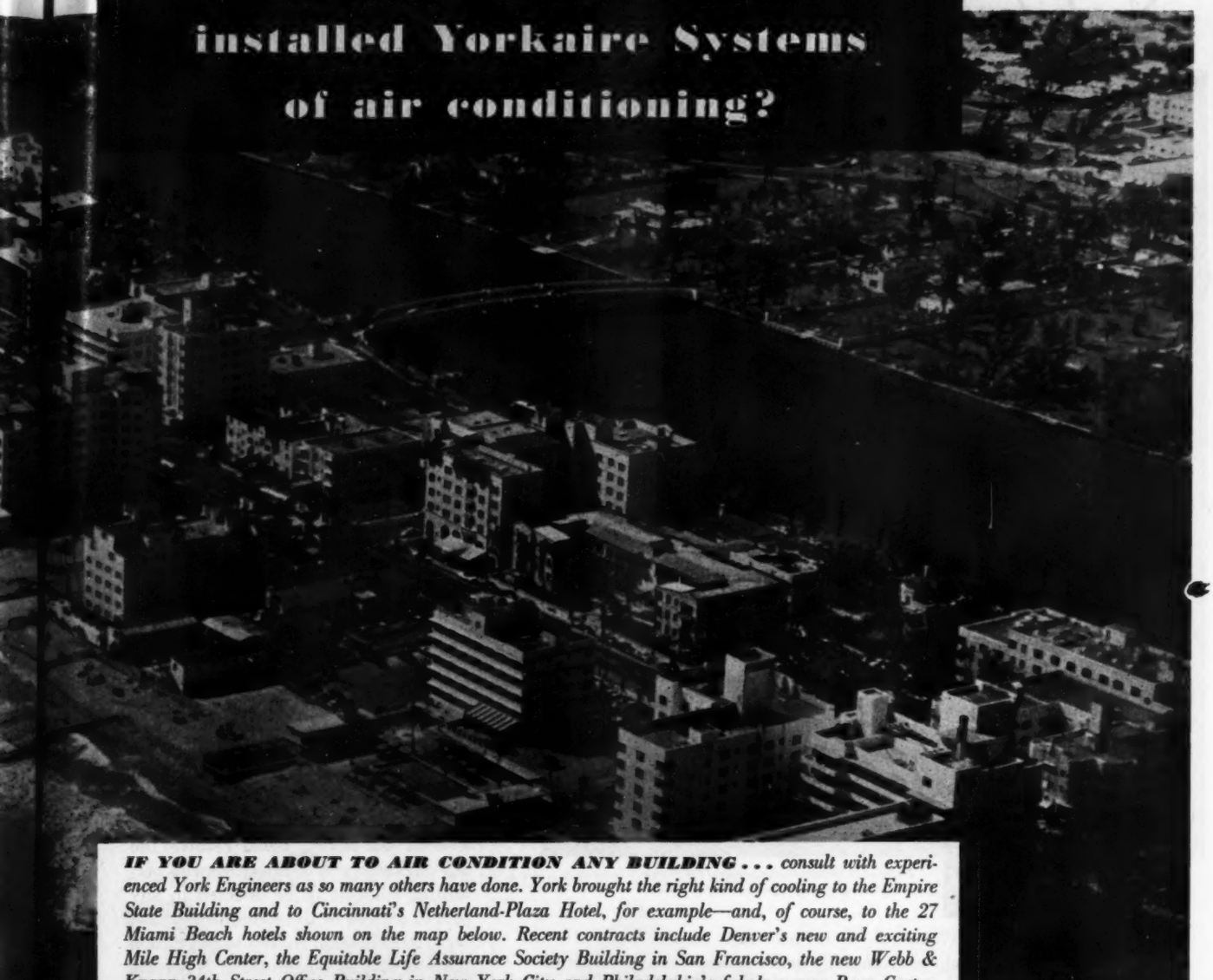
AMONG SEVERAL REASONS IS THIS IMPORTANT ONE: a Yorkaire System is the *right kind* of air conditioning . . . custom-tailored to the building.

That's why you'll find York cooling in 27 of Miami Beach's largest, best hotels (not to mention the leading hotels in Miami proper). As in all large buildings, glass areas and heat loads and floor areas and numbers of rooms, economic considerations, taxes, depreciation and many other factors varied from hotel to hotel, up and down the Beach. So obviously no one system—or even two or three —could do the job best for every hotel. That's why York engineered each system to fit the particular hotel in which it is installed.

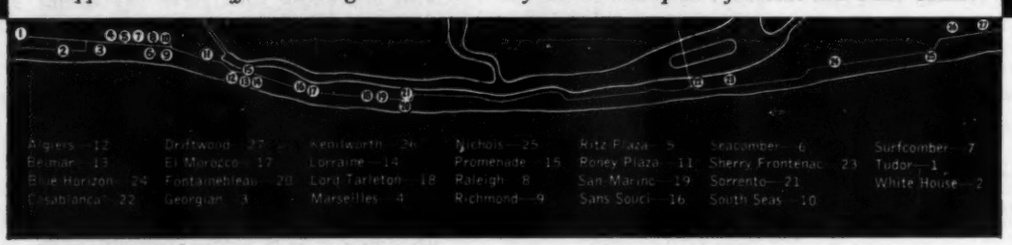
You can apply this knowledge and experience to your building by calling your York District Office (located in principal cities and listed in the classified phone book). York Corporation, York, Pa.

HEADQUARTERS FOR MECHANICAL COOLING SINCE 1885

Why have 27 of Miami Beach's largest, newest hotels installed Yorkaire Systems of air conditioning?



IF YOU ARE ABOUT TO AIR CONDITION ANY BUILDING . . . *consult with experienced York Engineers as so many others have done. York brought the right kind of cooling to the Empire State Building and to Cincinnati's Netherland-Plaza Hotel, for example—and, of course, to the 27 Miami Beach hotels shown on the map below. Recent contracts include Denver's new and exciting Mile High Center, the Equitable Life Assurance Society Building in San Francisco, the new Webb & Knapp 34th Street Office Building in New York City and Philadelphia's fabulous new Penn Center.*



York refrigeration air conditioning

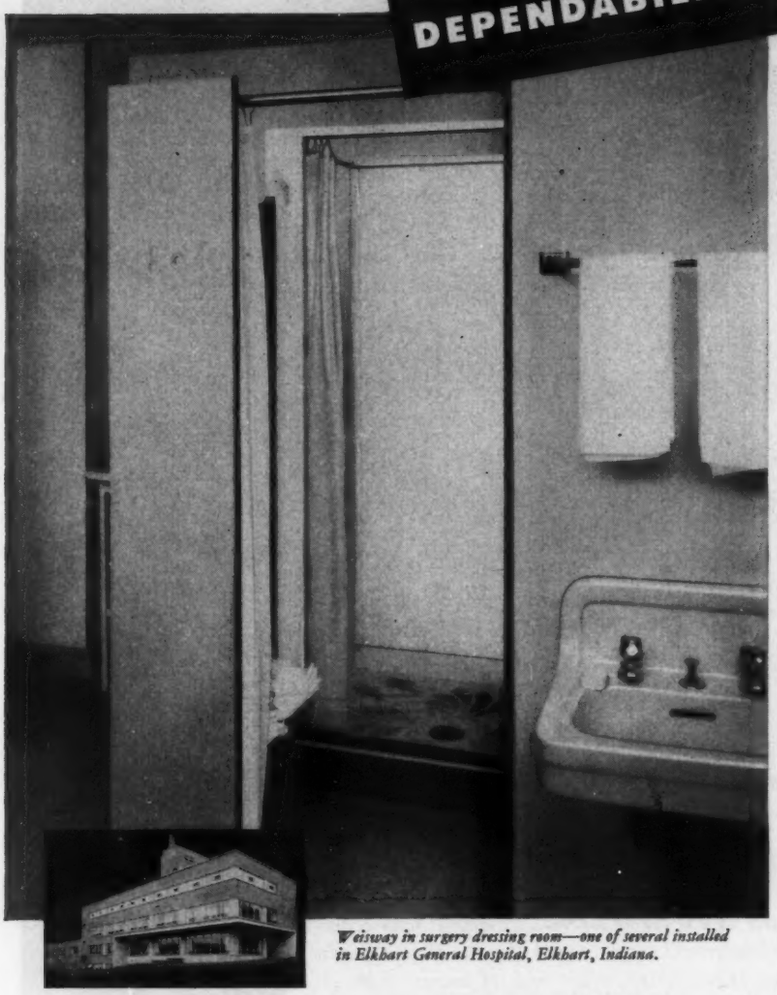
YORK CORPORATION

the quality name in air conditioning

HEADQUARTERS FOR MECHANICAL COOLING SINCE 1885

Weisway Cabinet Showers Meet Hospital Needs for...

CONVENIENCE
SANITATION
DEPENDABILITY



Weisway in surgery dressing room—one of several installed in Elkhart General Hospital, Elkhart, Indiana.

Leakproof, rustproof Weisways, with Foot-Grip, No-Slip floor of vitreous porcelain enamel, provide fully self-contained bath facilities which withstand severest use through long years of dependable service. Write for details and specifications on the complete Weisway line.

Among Many Hospitals Using Weisways:

ARGONNE CANCER RESEARCH HOSPITAL *Chicago, Illinois*
TERRACE HEIGHTS HOSPITAL *Long Island, New York*
ST. LUKE'S HOSPITAL *Fargo, North Dakota*
ST. JOSEPH'S HOSPITAL *Rice Lake, Wisconsin*
FINCH MEMORIAL HOSPITAL *Pullman, Washington*
STATE HOSPITAL, NURSES HOME *Rochester, Minnesota*
KENNEWICK HOSPITAL *Kennewick, Washington*
EDWARD JOHN NOBLE HOSPITAL *Canton, New York*
ALLIANCE CITY HOSPITAL *Alliance, Ohio*
LINCOLN COUNTY MEMORIAL HOSPITAL *Troy, Missouri*
MAYO MEMORIAL HOSPITAL *Minneapolis, Minnesota*
UNIVERSITY OF CHICAGO CLINIC *Chicago, Illinois*
CENTRAL ISLIP STATE HOSPITAL *Central Islip, New York*
TUBERCULOSIS HOSPITAL *Kearney, Nebraska*
CHARLESTON COUNTY TB HOSPITAL *Charleston, South Carolina*
CHRIST CHURCH HOSPITAL *Philadelphia, Pennsylvania*
CHICAGO STATE HOSPITAL *Dunning, Illinois*
NAVAL HOSPITAL *Quantico, Virginia*
I.O.O.F. HOSPITAL *Springfield, Ohio*
JACKSON MADISON COUNTY HOSPITAL *Jackson, Tennessee*

Weisway CABINET SHOWERS

HENRY WEIS MFG. CO., INC., *303 Weisway Building, Elkhart, Indiana*

AE PRODUCTS

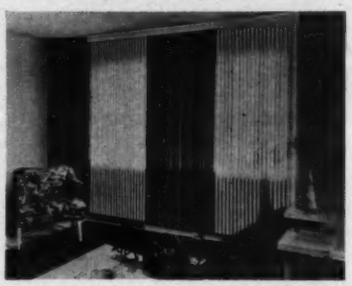
(*Continued from page 254*)

IN-WALL ELECTRIC HEATER



• An *electric heating system* which is automatic and mounted between wall studs is complete in a metal duct 7 ft high by 8 in. wide and 3½ in. deep. A fan unit at the top draws in already warm air near the ceiling and sends it down over a heating element located above the lower grille, which adds the required amount of heat and sends it out into the room. In the summer the fan will operate without the heating element to give cool air circulation. *Electrend Products Corp., St. Joseph, Mo.*

VERTICAL METAL BLINDS

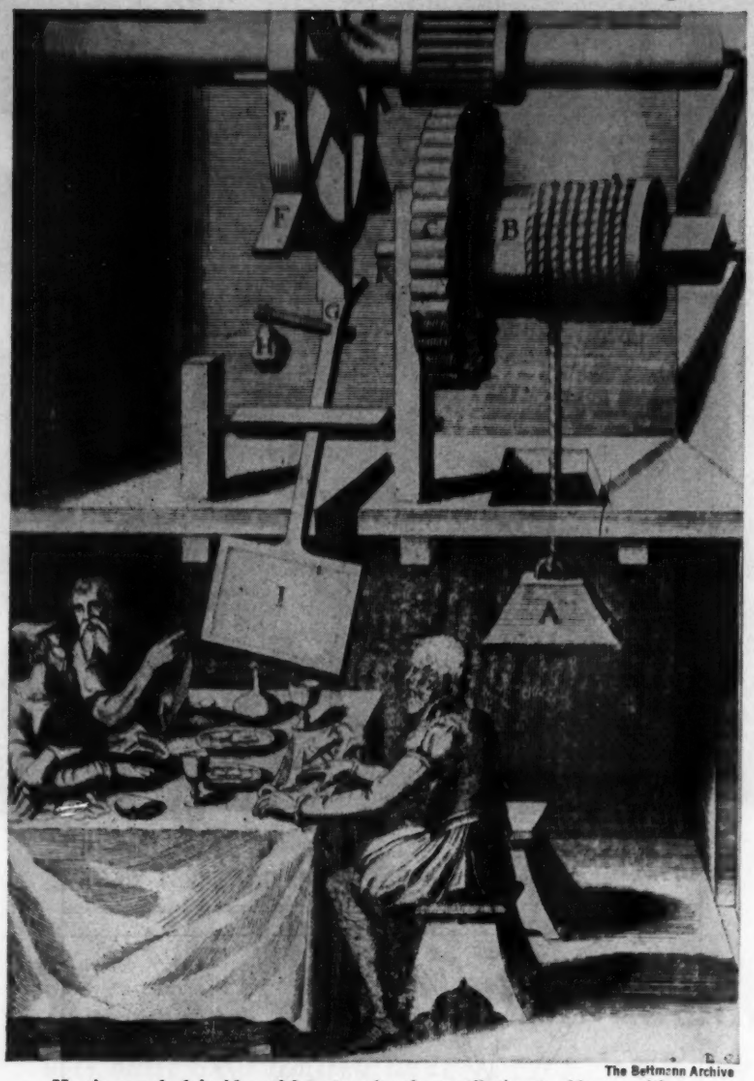


• *Metal slat vertical blinds* revolve 180 deg clockwise and counterclockwise permitting sunlight to be directed to any part of a room or to be completely shut out. An individual control unit for each slat can also be synchronized to revolve with uniformity throughout the blind. The blinds, available in a variety of colors, draw to fully open, closed and intermediate positions. *Acme Venetian Blind Co., 2320 S. Western Ave., Chicago 8, Ill.*

WOOD DECKING

• The *Unil Deck* single timber principle, providing a roof ceiling or wall that combines strength with light weight, fire resistance and natural insulation, eliminates purlins, joists, sheathing, insulation and interior finish in building. Available in red cedar or Inland white fur, 3½ in. thick by 4⅜ in. wide, it is said to be able to carry a live load of 30 psf on a span of 16 ft. *Unil Structures, Inc., Peshtigo, Wis.*

(*Continued on page 262*)



The Bettmann Archive

Here's somebody's idea of how to solve the ventilating problem—with a gravity engine—back in 1662. Today Airtemp can help you solve your clients' air conditioning problems.

Whatever your Air Conditioning problem—

AIRTEMP

is ready to help you!

Airtemp offers these "pluses" to those planning commercial and industrial air conditioning

Airtemp has the Right Equipment
To meet your *every* air conditioning need, Airtemp has a complete line of precision-built equipment—conventional or specially engineered—for a room or a building.

Experienced Engineers "at Your Service"
You are offered the advisory services of engineering specialists—pioneers in commercial and industrial air conditioning—through Airtemp Construction Corporation, a subsidiary of Chrysler Corporation.

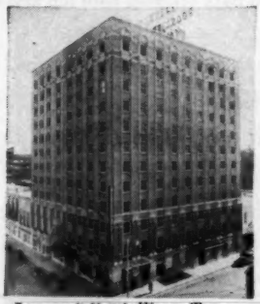
You Deal with a Leader
The Chrysler name is widely known. Over the years, it has gained public confidence for its leadership in quality and engineering.

Low Cost Result of Peak Efficiency
With Airtemp, both the installation cost and the operating costs are low. This extra economy is a result of Airtemp's extreme efficiency.

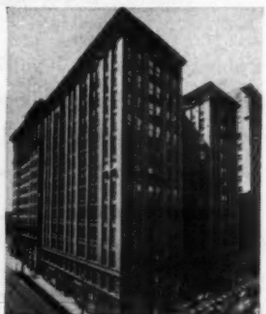
Nationwide Service Organization
You are guaranteed dependable local service by Airtemp's network of personnel and facilities.

AIRTEMP SOLVES VARIED INSTALLATION PROBLEMS





Roosevelt Hotel, Waco, Texas. Consulting Engineer: P. N. Vinther, Dallas, Texas.



Title Guaranty Building, St. Louis, Mo. Architect: Raymond E. Maritz; Consulting Engineers: Leo S. Weil and W. B. Moses; Mech. Engineers: Brussel & Viterbo; Air Conditioning Contractors: General Installation.

Ostheimer Building, Philadelphia, Pennsylvania. Owners: Ostheimer Realty Company. Architects and Engineers: The Ballinger Company.

HOW YOU GET THIS SERVICE—For complete information on Airtemp's service, simply write to: Airtemp Division, Chrysler Corporation, Dept. AR-3-55, Dayton 1, Ohio

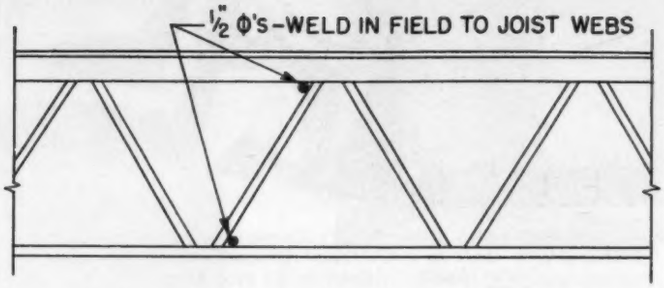
Airtemp
DIVISION OF CHRYSLER

AIRTEMP
Comfort Zone

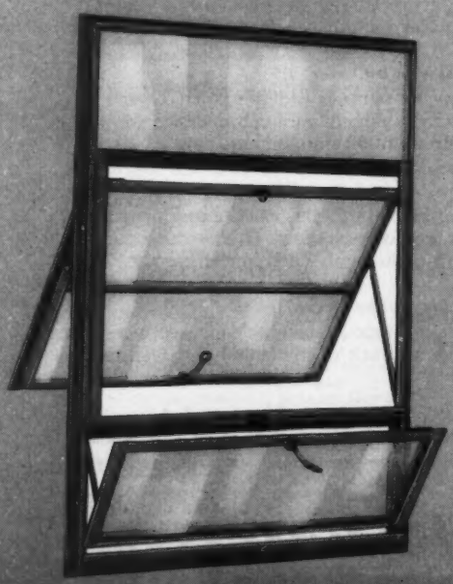
AIR CONDITIONING • HEATING FOR HOMES, BUSINESS, AND INDUSTRY



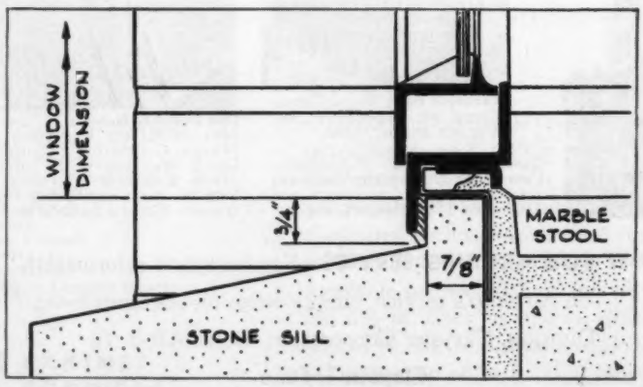
Front view of Normandy Road School, Bay Village, Ohio. Architects: Mellenbrook, Foley & Scott. Contractor: J. L. Hunting Company.



This ½" round horizontal bridging is recommended by the Steel Joist Institute, with ½" round bars bridging both top and bottom chords.



Ceco Architectural Projected Windows also contributed toward ... economical, functional building. Their solid hot-rolled ... sections provide easy wall bearing anchorage ... strength ... flexibility of ventilation ... plus beauty and good daylighting.



This sill detail, with the window frame overlapping the stone sill and the joint properly caulked, provides efficient watertightness and drainage. Another school-wise feature is the marble stool.



Close-up detail of Normandy Road School.
Note the variations in window use.

How a school for 400 students was built on a limited budget . . .

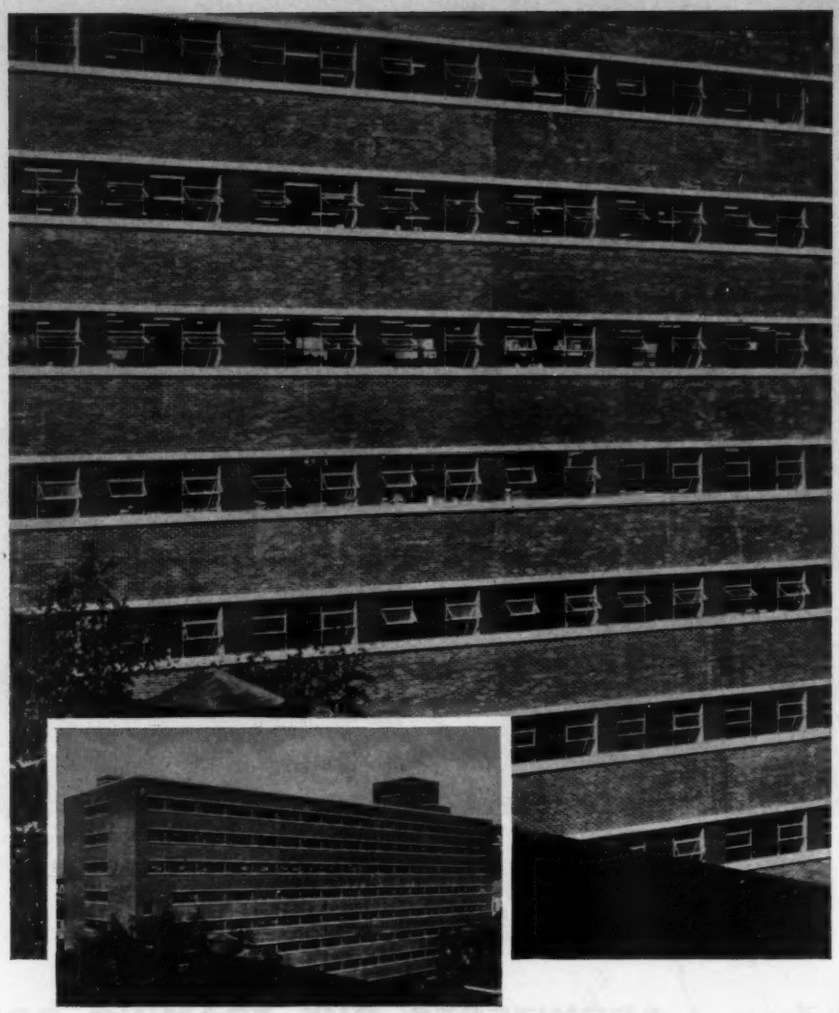
ARCHITECTS CUT FRAMING COSTS 15% WITH CECO STEEL JOISTS

It takes more than ingenuity to meet building budget problems . . . knowledge of workable short cuts is important here. So Architects Mellenbrook, Foley & Scott drew deeply on experience in designing the Normandy Road School, Bay Village, Ohio. The problem was to accommodate a set number of students—with a limited budget. Ceco Steel Joist Construction contributed to the solution by saving 15% over other floor and roof framing methods. It is the lightest of all fire-safe constructions and is easiest and fastest to erect. Ceco *Standard* Steel Joists were used effectively in classroom, office and corridor areas—bays being from 9′ 9⅝″ to 27′ 4½″ wide. Extended ends provided low-cost sunshade overhangs, cantilevered over the window areas. Ceco *Longspan* Steel Joists with nailer strips simplified framing of gymnasium areas. At least a month's time was saved because steel joists are erected faster than heavier framing. All Ceco deliveries were timed to meet the schedules of the contractor. Here is another example of Ceco performing on the architect-contractor-supplier team to help meet a building need. Next time, call on Ceco Product Specialists. They will assist you in planning and saving.

CECO STEEL PRODUCTS CORPORATION
Offices, warehouses and fabricating plants in principal cities
General Offices, 5601 W. 26th Street, Chicago 50, Illinois

CECO STEEL

IN CONSTRUCTION PRODUCTS CECO ENGINEERING MAKES THE BIG DIFFERENCE



Let's talk "DARK ACCENTS"

For mullions, spandrels, and trim.

With Alberene Stone – in tones that range from silvery gray to dark gray; greenish blue to black; and jet black.

Alberene Stone – *the natural silicate* stone – offers durable "dark accent" beauty. Its low absorbency, fine grain and absence of stratification prevent chipping and cracking in freezing weather. Its all-silicate mineral components resist chemical attack and loss of surface polish.

Alberene Stone can be cut into sections as thin as 7/8" and 1¼". It offers designers economy, and increased flexibility in design – such as greater depth of reveal in spandrels.

For information and technical assistance, address: Alberene Stone Corporation, 419 Fourth Avenue, New York 16, N. Y.

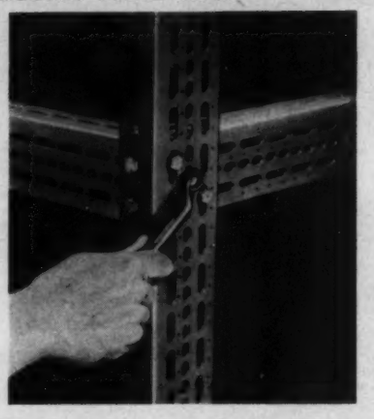
ALBERENE STONE

provides LOW ABSORBENCY protection

A E PRODUCTS

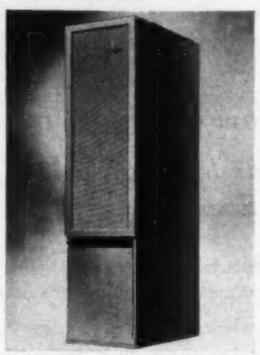
(Continued from page 258)

SLOTTED STEEL BARS



• Basic components of the *Flowstrut construction system* are slotted steel angle bars in lengths of 12 ft, predrilled with 40 boltholes per foot. Twenty-gauge steel panels are used for surface areas, fastened directly to the angle bars. *Flowstrut*, which is bonderized and has a weather-proof baked gray enamel finish, can be used in conjunction with other materials. *Flowstrut Corp., 141 E. 44th St., New York, N. Y.*

GAS-FIRED FURNACE

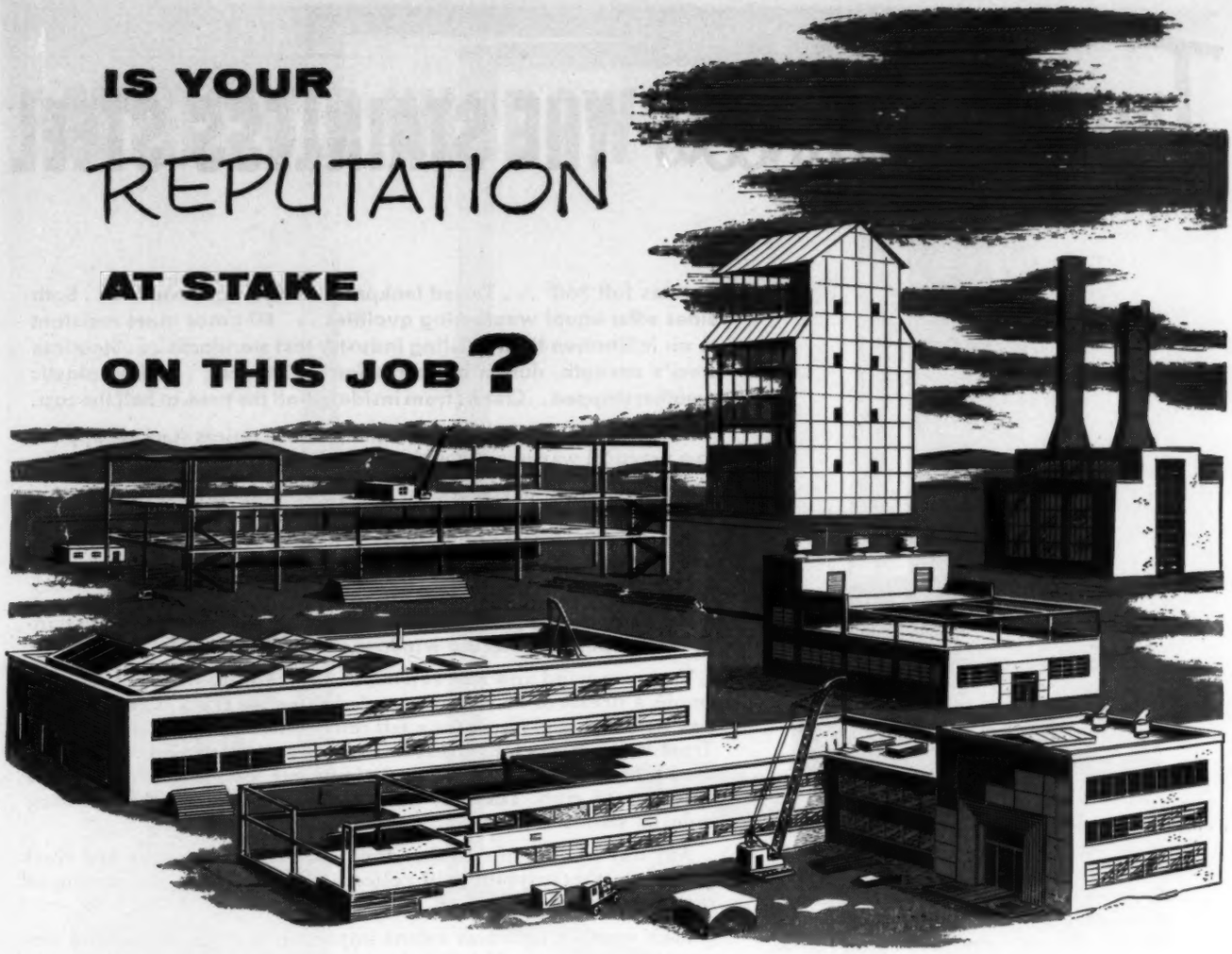


• *Gas-fired, forced-air furnaces* which can be installed in a standard 30-in. closet range from 75,000 to 150,000 Btu input. All electrical equipment can be serviced through a snap-off door; the blower-motor combination is installed on a pull-out track for convenience in cleaning and servicing. The element is die-formed and seam-welded and includes automatic safety-turn-off in case of excessive temperature or burner failure. *Royal Jet, Inc., Alhambra, Calif.*

COLORED BRICK

• *Brick colors* of pink, turquoise and black, attained by the use of ceramic colors fused into fine brick clays, are said never to fade. The brick is the same shade throughout and is impervious to moisture. *Malvern Brick and Tile Co., Malvern, Ark.*

IS YOUR REPUTATION AT STAKE ON THIS JOB?



Make-shift or hit and miss piping systems are not only costly in corrections and repairs . . . but certainly reflect on the ability of the mechanical engineer. It is *not* necessary to gamble on an efficient, long lasting insulated piping system. RIC-WIL's forty-five years in the Insulated Piping Field is your assurance of the finest piping system for both overhead and underground use. Specify RIC-WIL and be sure of the results.

For complete technical information contact your nearest RIC-WIL field representative or send for the RIC-WIL catalog.



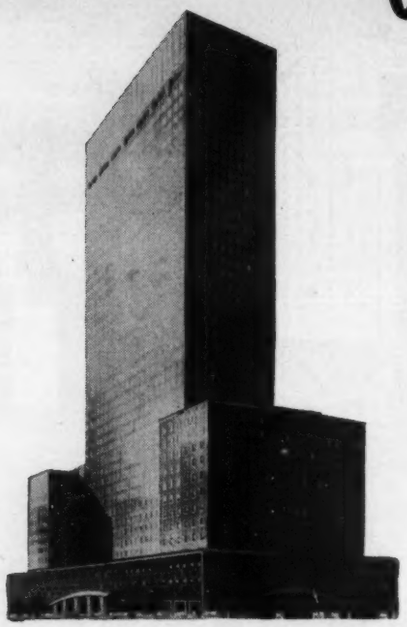
Quality Piping Systems . . .
. . . of Exceptionally High Thermal Efficiency

RIC-WIL INCORPORATED

PREFABRICATED INSULATED PIPING SYSTEMS

BARBERTON, OHIO

Truscon Perfects THE STAINLESS STEEL



First installation of Truscon's stainless steel reversible window will be in the monumental 150 E. 42nd St. Building, known as the "Socony-Vacuum" Building. This world's largest fully air-conditioned commercial office building is 42 stories high. It will be equipped with more than 3100 of the new windows. Harrison and Abramovitz, architects; John B. Peterkin, associate. Turner Construction Company, general contractor. Edwards and Hjorth, structural engineers. Jaros Baum and Bolles, mechanical engineers. Edward A. Ashley, electrical engineer.

Rotates full 360° . . . Tested leakproof in 100 mph winds . . . Both sides offer equal weathering qualities . . . 80 times more resistant to air infiltration than existing industry test standards . . . Stainless steel's strength, durability, corrosion resistance . . . Vinyl plastic weatherstripped... Cleans from inside in half the time, at half the cost.

At last, all the architectural advantages of stainless steel are applied in a practical way in a pivoted reversible window.

Stainless steel offers almost complete immunity to weathering effects. It resists rust and corrosion. It is easy to clean and to keep clean. It offers tremendous strength in thin sections that trim bulk and save weight. And, you can't wear it out. It keeps its good looks for life.

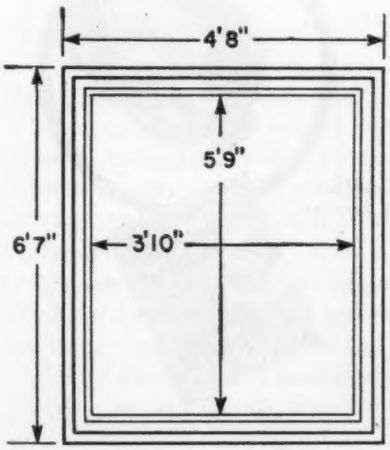
Here is truly the permanent window. The easiest-to-maintain window. The best-weathering window ever produced.

To prove wind and rain resistance, severe tests were run. For example, a stream of water was cascaded along the crack between stainless steel sash and frame for a full thirty minutes. *No leaks developed.* Truscon engineers found that this window resisted all but one-hundredth of a cubic foot of air per minute per foot of crack at a wind speed of 25 mph. That's *80 times less* air leakage than the existing industry standard allows.

Any tiny amount of rain that does work its way past the first vinyl plastic weatherstripping will collect in the groove at the bottom of the frame and be carried off.

Such weather tightness means important savings in fuel and air-conditioning costs. This window can be cleaned in half the time, from *inside,* at half the cost. More savings.

Truscon engineers will be happy to help you apply the window to monumental jobs now on your boards. The coupon below will bring you advance information.



Truscon's stainless steel reversible window as designed for 150 E. 42nd St. Building will be assembled in a panel unit with stainless spandrels. Truscon engineers will help you design size modifications of this window to meet your individual requirements.

All of the exterior surface of 150 E. 42nd St. Building above the 3rd floor will be stainless steel. Illustrated are vertical piers and spandrels. Only four inches of masonry behind the stainless steel sheathing will be needed to meet New York City building codes. This reduced wall thickness allows an extra 3% of rentable space. Wall weight will be cut by about 70%. Stainless—selected for resistance to corrosion and fire, low maintenance costs and appearance—is being supplied by Republic and other leading producers.



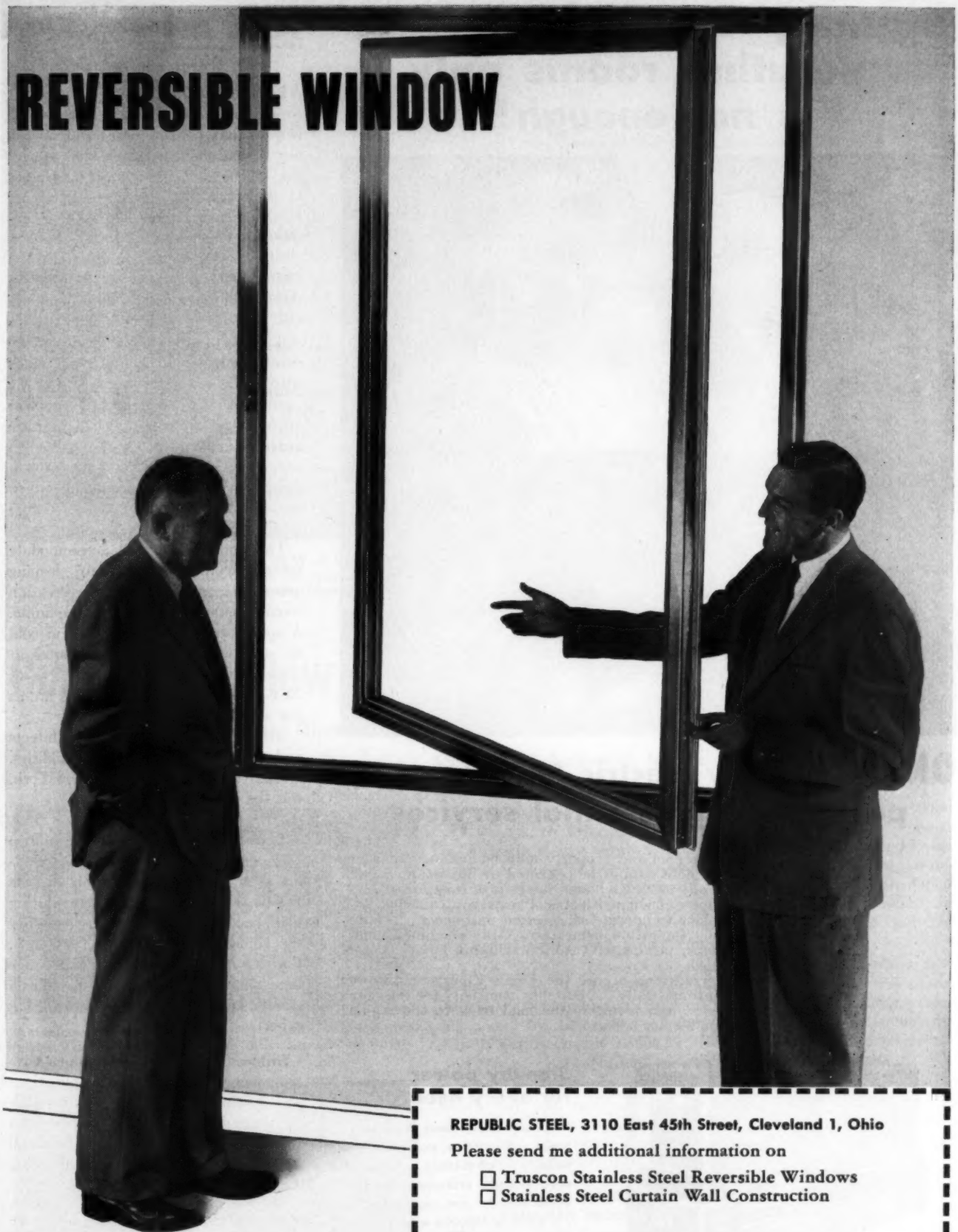
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REPUBLIC STEEL

World's Widest Range of Standard Steels and Steel Products

REPUBLIC STEEL

REVERSIBLE WINDOW



REPUBLIC STEEL, 3110 East 45th Street, Cleveland 1, Ohio

Please send me additional information on

☐ Truscon Stainless Steel Reversible Windows
☐ Stainless Steel Curtain Wall Construction

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K-7482

Standby electric power in operating rooms only *is not enough!*



ONAN Standby Electric Plants supply power for all essential services

Patients, hospital personnel and property may be endangered when any other vital equipment cannot be operated or important service performed . . *especially when the power outage is of long duration.*

From the wide range of Onan Electric Plants you can specify a model with the capacity to operate *all essential equipment* . . . automatic heating system, respirators, aspirators, X-ray machines, ventilators, communications, pumps, elevators and lights *for as long as these services are needed.*

When power interruptions occur, the Onan Emergency Power System takes over automatically . . . supplies electricity for the duration of the outage . . . and transfers the load back to the regular source of power when service is restored.



Model 25HN
25,000 watts

Standby power for every need

Hospitals, homes, schools, churches, hotels, radio stations, stores, businesses . . . all modern buildings need standby protection. Onan builds units for any requirement . . . 1,000 to 100,000 watts.

Write for Architects kit SP1020

D. W. ONAN & SONS INC.

2629 UNIVERSITY AVE. S. E. • MINNEAPOLIS 14, MINNESOTA

Onan ELECTRIC PLANTS

AE ROUNDUP

(*Continued from page 215*)

ARCTIC HOUSING ***First Permanent Structure on Icecap Like Submarine***

Houses that sink at the rate of several feet a year have been constructed by the U. S. Army Corps of Engineers to provide shelter for an isolated Air Force team conducting weather research in Greenland.

The housing units, built of steel tubes 18 ft in diameter and of varying lengths, employ the pressure hull principle of the submarine and are ballasted to sink on an even keel. The insides of the culverts are squared into long rooms with braces to support the weight of the structure and to withstand the pressure of snow and ice on the sides and on top as the sections move lower into the icecap. Personnel move in and out through submarine-like escape hatches which can be lengthened as the structure descends.

The units, which will accommodate several score men, contain sleeping quarters, a mess hall and a recreation room. Passageways connect the units. A special heating system pulls in cold air from the outside, distributes it and maintains inside temperatures at 72 F when outside temperatures are as low as −75 F.

Metcalf-Eddy, of Boston, architects and engineers, designed the buildings. North Atlantic Constructors, New York, was the contractor.

• • • • • • • • • • • • • • • • •

• **A combination heliport-steamship pier,** designed so that passengers landing at one of the metropolitan airports can be transferred quickly to a waiting liner, has been opened at 15th Street and the Hudson River in New York City. For the present, however, the Grace Line will use the 850- by 150-ft roof as a storage space for automobiles awaiting export.

• **Indoor Comfort Conferences** covering new warm air heating applications and summer air conditioning installations are being held in 20 cities from January through April by the National Warm Air Heating and Air Conditioning Association.

• **A new type of gas-fired air conditioning** is in the research plans of the A. O. Smith Corp. to the tune of several hundred thousands of dollars, according to a report sent to 370 American Gas Association members.

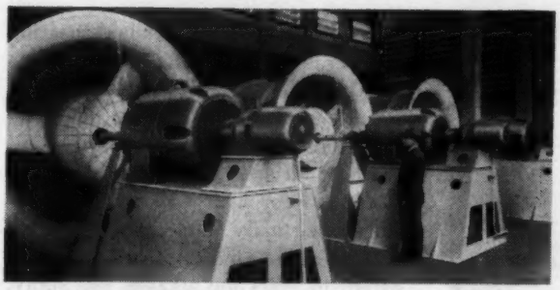
(*Continued on page 268*)



North entrance to West Virginia Turnpike's Memorial Tunnel. American Blower Fans exhaust fumes from three huge outlets above the entrance. General consultants: Howard, Needles, Tammen & Bergendoff, Charleston, W. Va. Tunnel consultants: Singstad & Baillie, New York, N.Y. Contractor: Kuhn Construction Co., Charleston, W. Va.

Giant fans blow fresh air through a mountain

Powerful American Blower Fans keep air fresh, and free of exhaust fumes, in West Virginia Turnpike's $5,000,000 half-mile Memorial Tunnel



American Blower Fans at south entrance to the Turnpike's Tunnel force air one-half mile through mountain.



Scale model was built and tested in American Blower laboratory prior to construction of Tunnel's huge fans.

WEST VIRGINIA's 88-mile $133 million Turnpike – from Charleston, W. Va., to Princeton, W. Va. – is the first completed segment of a superhighway network linking the Great Lakes with Florida.

Most spectacular feat of its construction is the Memorial Tunnel burrowing through the heart of a West Virginia mountain. Open-ended, and over a half-mile in length, the tunnel posed a mountain-sized ventilation problem – which was solved using powerful American Blower air-handling equipment.

Three American Blower Vaneaxial Fans at the south entrance draw in outdoor air at up to 570,000 cubic feet per minute; three similar American Blower Fans at the north entrance exhaust the gas-laden air caused by the heavy vehicular traffic. Although the tunnel will handle approximately 10,000 vehicles daily, air inside remains fresh and free of exhaust fumes!

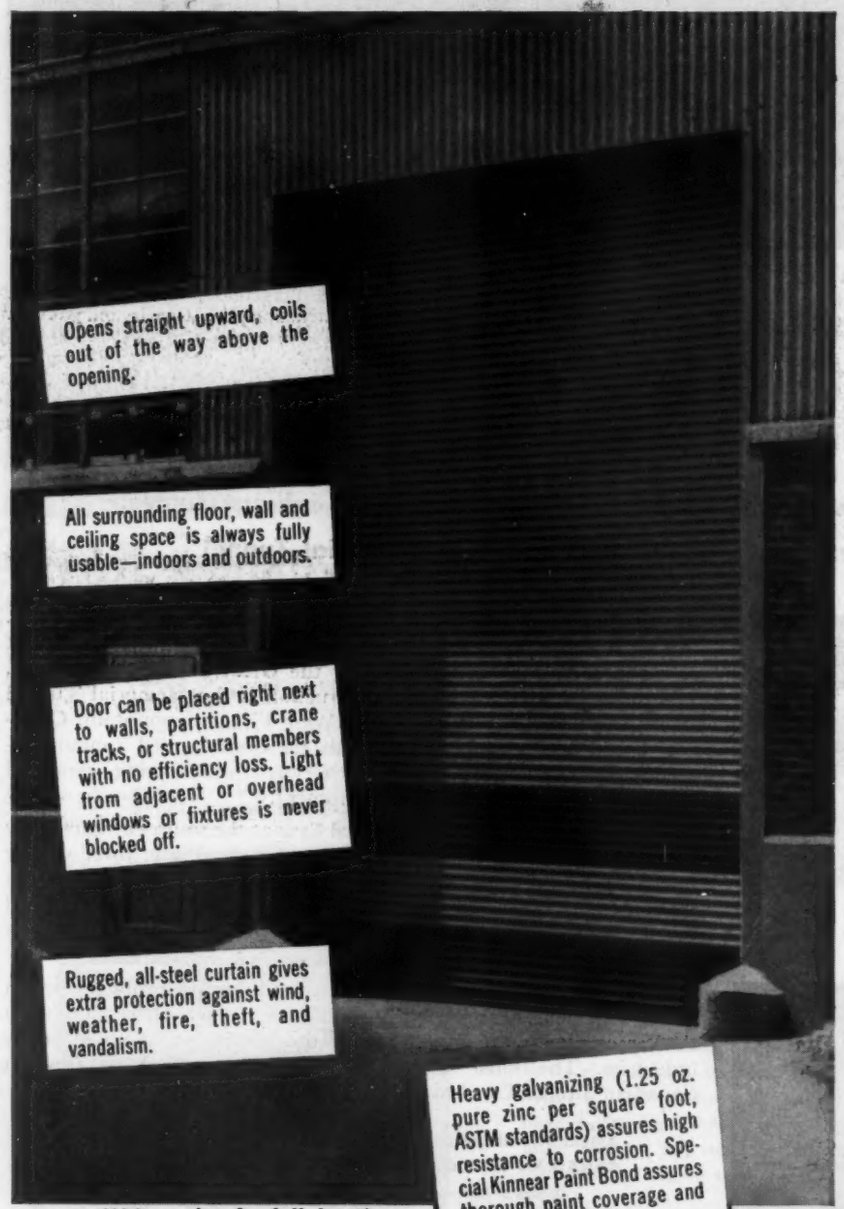
If *you* have an air-handling or air-conditioning problem, get in touch with your nearest American Blower Branch Office. American Blower engineers are familiar with the special problems of many industries. The same services are available in Canada through Canadian Sirocco Co., Ltd.

AMERICAN BLOWER CORPORATION, DETROIT 32, MICHIGAN
CANADIAN SIROCCO COMPANY, LTD., WINDSOR, ONTARIO
Division of American Radiator & Standard Sanitary Corporation

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Serving home and industry: AMERICAN-STANDARD • AMERICAN BLOWER • CHURCH SEATS & WALL TILE • DETROIT CONTROLS • KEWANEE BOILERS • ROSS EXCHANGERS • SUNBEAM AIR CONDITIONERS

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Saving Ways in Doorways
KINNEAR ROLLING DOORS

AE ROUNDUP

(*Continued from page 266*)

CORROSION RESISTANCE ***of Steel Tubing for Radiant Heating Studied***

Corrosion resistance of flexible steel tubing in radiant panel heating installations is the subject of a technical report by the Stanford Research Institute titled "Survey on the Corrosion Protection of a Carbon Steel Tubing for Radiant Panel Heating Applications." Five factors were considered in the study:

1. Tubing may be stored before use under various atmospheric conditions.
2. Handling during installation may cause localized corrosion due to accidental contact with corrosive media and perspiration or other influences.
3. Exposure to weather after laying but before covering with concrete may be conducive to corrosion.
4. Unforeseen conditions, such as seepage upward from the soil into the slab by hydrostatic pressure, are a potential corrosion problem.
5. Seepage downward through floors frequently washed or otherwise wetted may eventually reach the tubing and corrode it.

The report said that "Although it is well known that steel . . . embedded in concrete will not corrode . . . the above five factors . . . appear sufficiently compelling to warrant recommending that the exterior of the steel tubing to be used in radiant heating systems be coated." Phosphatizing was found to be the first line of defense against corrosion, to increase the adhesion of the protective coating of modified phenolic epon in two layers, heavily pigmented for high density. This provides a virtually inert organic coating impermeable to moisture and highly resistant to acids and alkalies, salt spray, alcohols, gasoline, aliphatic hydrocarbons and mineral oils.

• **Precast concrete grade beams** saved about two weeks construction time per building on a 54- by 40-ft compressor station and a 54- by 30-ft auxiliary structure built for a natural gas utility at Adaline, W. Va. The precast method, used before on larger jobs, minimized form building, since multiples of one standard form could be used; limited excavation, since no room for workmen was required; and facilitated working methods.

(*Continued on page 272*)



Real clay tile—immune to most problems

Normal and necessary hospital procedure is good for patients but bad for almost any material except ceramic tile. American-Olean Tile thrives on abuse and stays bright despite constant scouring with harsh disinfectants. It does not need costly repainting, refinishing, or repairs. Your first cost is your last, with A-O Tile!

TILE SPECIFICATIONS: Color Plate 332. Walls: 63 Flax Blue. Cap and Base: 65 Iris Blue. Floor: 2⅜" Golden Range Varitone with Maroon Textone Border.

CONDUCT-O-TILE eliminates main causes of anesthetic explosions.

Newly-developed vitreous ceramic tile dissipates dangerous charges of static electricity. Permanently conductive, without waxing or other special treatment. No free carbon to bleed out or track. Send for complete technical data.

American-Olean Tile Co.

Executive Offices: 1076 Kenilworth Ave., Lansdale, Penna.
Factories: Lansdale, Pennsylvania • Olean, New York
Member: Tile Council of America

AMERICAN-OLEAN TILE COMPANY
1076 Kenilworth Ave., Lansdale, Pa.
Please send me, without charge,

- ☐ Information and literature concerning CONDUCT-O-TILE.
- ☐ Booklet 600, Tile for Schools and Hospitals.

Name.....
Hospital.....
Street.....
City.....Zone.....State.....



But where will you connect Miss Foster?

Whether you're planning or building offices for your own use or for rental to others, you'll need electrical circuit connections throughout the floor area—to efficiently utilize every square foot of space. You can't crowd all desks around wall outlets and it's dangerous and unsightly to run exposed raceways across floors. How then can you obtain maximum electrical adequacy plus space flexibility? The answer is General Electric Q-Floor wiring, the system that provides complete electrical availability for typewriters, dictating machines, calculators, telephones, intercoms, lighting, postal machines, and other electrically operated equipment.

The General Electric Q-Floor wiring system is designed for installation in cellular steel subflooring, and makes every square foot of floor space available for outlets. Every cell is a raceway for present and future circuit requirements. No costly alterations, no litter, no tie-up of space, no matter how often or how much your electrical requirements change. And it is doing a job in office buildings like famed Lever House in New York City, and in industrial buildings and institutions across the country.

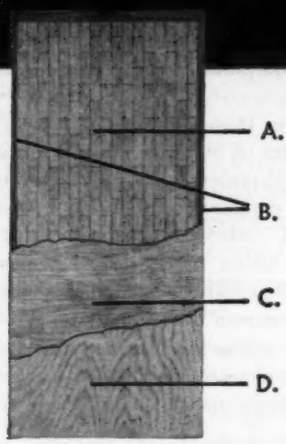
For more information on General Electric Q-Floor wiring, call your G-E Construction Materials district office, or write to Section C49-35, Construction Materials Division, General Electric Company, Bridgeport 2, Connecticut.

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GENERAL ELECTRIC

Roddiscraft — *quality wood craftsmanship for over 60 years*





A. Cores — low density wood blocks glued under pressure with water resistant resin glue

B. Edge strips — double thickness top and bottom, side edges — same wood as face veneer

C. Crossbanding—hardwood veneer glued with water-proof phenolic resin glue to both sides of core

D. Face veneers — selected face veneers glued with phenolic resin glue to both sides of the door and belt-sanded smooth

Meet the door that's *built for abuse!*

It's Roddiscraft's Standard Solid Core Door . . . constructed to the quality standards that have long made Roddis solid core doors the first choice of architects for schools and other installations where there are heavy traffic hazards.

Every Roddiscraft solid core door is welded into a single unit — core, crossbanding, and face veneers — with strength unsurpassed by any other wood door on the market. They are impervious to water — will not warp, crack or check — resist fire up to 40 minutes, and provide sound resistance only slightly less than special sound-proof doors.

But get all the facts. Write for full details on Roddiscraft doors, or see our catalog in Sweets Architectural File.

Roddiscraft — one source for all your door needs

Roddis Plywood Corporation, Marshfield, Wis.

Warehouses in Principal Cities



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Gentlemen: Please send your new Spray Dehumidifier Bulletin to:

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AE ROUNDUP

(*Continued from page 268*)

HOME NOISE *Studied by AMA*

The "open plan" home of today, with its numerous mechanical laborsavers, is creating a problem of increasing concern to residential architects, it was pointed out at a meeting of the Acoustical Materials Association.

The first steps toward establishing acoustical standards easily understood by the architect, builder and layman and inaugurating a program aimed at educating the public on the benefits of quieter homes was taken by the AMA with the appointment of a Home Marketing Committee to study the question. Serving on the committee are Don Proudfoot of Simpson Logging Co., Paul Washburn of Johns-Manville Corp., George W. Handy of National Gypsum Co. and A. D. Park of Armstrong Cork Co.

The Committee will study the sound absorption requirements of homes, room by room, as related to desirable noise levels and reverberation times; the sound isolation values desirable between various rooms; the allowable noise level of principal mechanical equipment in the home; and the noise "climate" of the building site.

. . . . . .

• **"Modern Designing with Steel,"** a new series of monthly semi-technical reports, will present ideas for the use of steel with emphasis on economy of material and esthetic appearance. Published by Kaiser Steel Corp. for more than 8000 architects, engineers and construction men throughout the West, the papers will include engineering data, design samples and pictures of finished projects where new techniques are involved.

• **Residential air conditioning** in older houses will be spurred by the high rate of construction of new air conditioned homes, predicted Cloud Wampler, President of Carrier Corp., in his forecast of a rise in central residential equipment sales from approximately $100 million in 1954 to $160 million in 1955.

• **Architectural woodworkers** discussed the importance of maintaining close personal contact with architects and providing them with up-to-the-minute details and information at the Architectural Woodwork Institute's annual meeting in Chicago.

(*Continued on page 274*)

The right windows make a REAL DIFFERENCE . . .



Ask the school custodian!

He'll tell you how easy it is to screen and clean Fenestra* Intermediate Steel Windows safely—and economically—from the *inside,* without ladders or scaffolds. He knows, too, that your school will save on maintenance. Every window member is steel—for strength. Sturdy hardware stays firmly attached. And if you specify Super Hot-Dip Galvanizing, you'll save additional thousands of dollars in painting costs every few years.

Create Ideal "Learning Atmosphere"

These beautiful steel windows let in more daylight because the steel window members are rugged, yet slender. So you get more glass area and clear vision view per window opening.

They give you better ventilation, too. Tilt-in vents bring in plenty of fresh air, *without* drafts . . . shed rain to the outside. Other vents project out to form weather-protective canopies over their openings.

For further information, call your Fenestra Representative. He's listed in the yellow pages of your phone book. Ask for your authoritative booklet, called *Better Classroom Daylighting.* Or write Detroit Steel Products Company, Dept. AR-3, 2252 East Grand Blvd., Detroit 11, Michigan. *®

Fenestra | **INTERMEDIATE STEEL WINDOWS**

Architectural, Residential and Industrial Windows • Metal Building Panels
Electrifloor* • Roof Deck • Hollow Metal Swing and Slide Doors



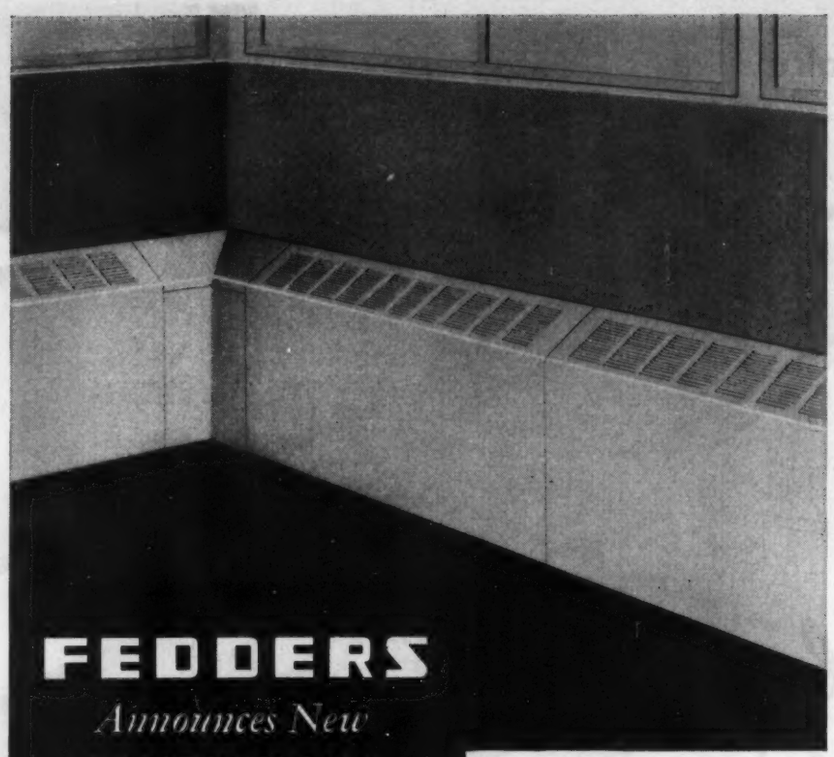
INDIANA. Orchard Park Elementary School, Highland, Indiana. *Architect:* Bachman & Bertram, Hammond, Indiana. *Contractor:* John F. Rahn, Inc., East Chicago, Indiana.



ILLINOIS. Lincoln Way High School, New Lenox, Illinois. *Architect:* Childs & Smith, Chicago, Illinois. *Contractor:* Robert G. Regan Co., Joliet, Illinois.



MASSACHUSETTS. LaSelle Junior College, Newton, Mass. *Architect:* J. Williams Beal Sons, Boston, Mass. *Contractor:* Park Construction Co., Inc., Boston, Mass.



For Schools, Institutions, Offices, Commercial, Industrial and Public Buildings

HEATING MEN welcome them for installation under rows of windows and in large rooms and corridors.

ELEMENT—High capacity single element gives maximum heat transfer per running foot. Element is made of 3/4" O. D. copper tubing with aluminum fins.

ATTRACTIVE DESIGN—Cabinets are styled to harmonize with architectural requirements. Sloping top prevents cabinet being used as a seat or shelf. Integral grille at top directs the heat upward and outward into the room. Cabinets have interlocking fronts for smooth long runs.

PACKAGE UNIT—Formed steel brackets support the element and anchor the front panel. Heating element is assembled in cabinet at the factory, and shipped as packaged units. Chain or knob type dampers are available.

PIPING—Convector assemblies are packaged in left and right hand and intermediate sections. Intermediate sections have element tubes expanded on one end for quick, easy joining of adjacent tubes without couplings.

Write for new Bulletin CTS-C1

FEDDERS-QUIGAN CORPORATION

Lalor and Hancock Sts., Trenton 7, N. J.

AE ROUNDUP

(Continued from page 272)

BROCHURES AND BOOKLETS

Fire Endurance of Open-Web Steel-Joist Floors with Concrete Slabs and Gypsum Ceilings, Building Materials and Structures Report 141, by James V. Ryan and Edward W. Bender, National Bureau of Standards. U. S. Government Printing Office (Washington 25, D. C.) 1954, 17 pp, illus. 20¢.

Fire Tests of Brick Walls, Building Materials and Structures Report 143, by S. H. Ingberg, National Bureau of Standards. U. S. Government Printing Office (Washington 25, D. C.) 1954, 52 pp, illus. 35¢.

Aluminum Building Wires and Connectors, Research Bulletin 48, by C. W. Zimmerer and F. Neumer. Underwriters' Laboratories, Inc. (207 East Ohio St., Chicago 11, Ill.) 1954, 45 pp, illus.

Admixtures for Concrete, prepared by ACI Committee 212. American Concrete Institute (18263 West McNichols Rd., Detroit 19, Mich.) 1954, 34 pp. 75¢.

Proceedings of a Conference on Thin Concrete Shells, held at the Massachusetts Institute of Technology, June 21–23, 1954, and divided into three sections: Architecture, Structural Analysis and Design, and Construction. M.I.T. (Miss Jean Murray, Room 1–250, Cambridge 39, Mass.) 1954, 134 pp, illus. $5.00.

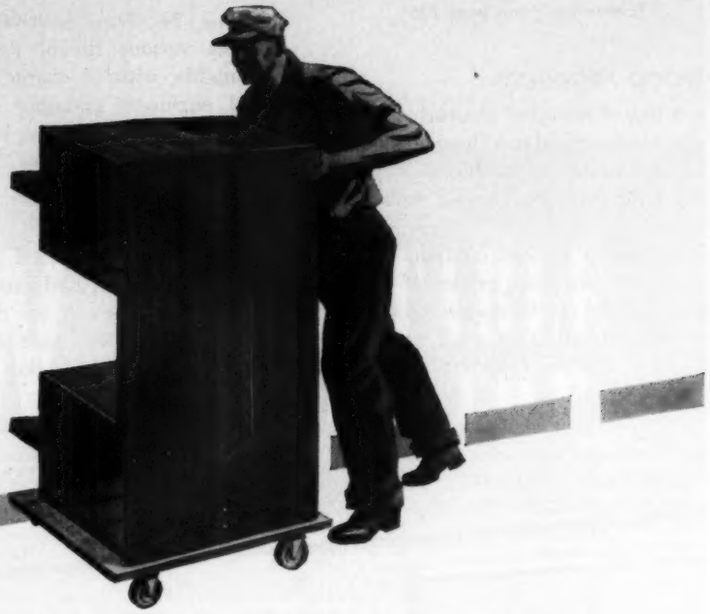
Industrial Defense Planning Manual—Iron and Steel. American Iron and Steel Institute (350 Fifth Ave., New York 1, N. Y.) 1954, 43 pp, illus. 50¢.

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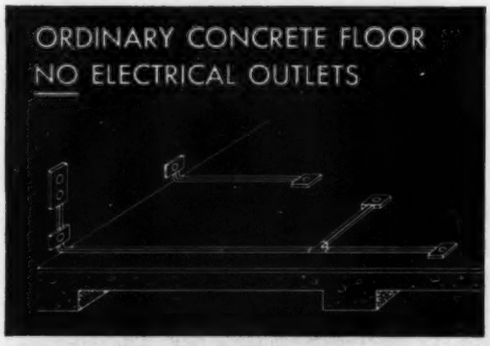
• **Clay tile** has a great potential for 1955, predicts Verne W. Boget, chairman of the Tile Council of America. "More attention is being paid to the architect, the interior decorator and the man who wants an outstanding installation that will be a credit to the industry," he said.

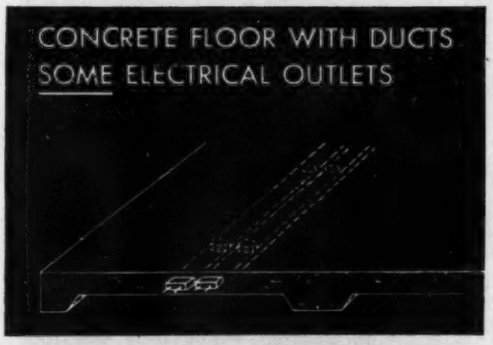
• **An installment plan for wiring systems** is a method by which old house wiring can catch up with the rapid multiplication of home appliances and high lighting levels demanded by today's electrically operated existence, forecasted L. E. Barrett, Plan Committee Chairman, National Adequate Wiring Bureau, New York.

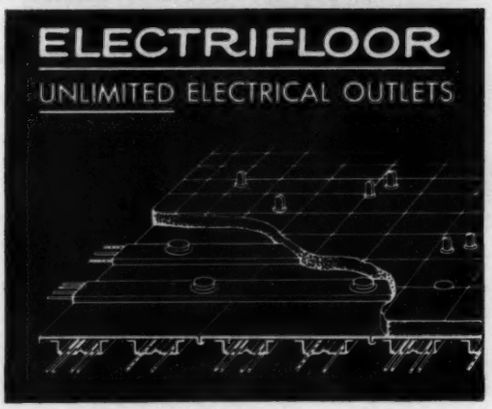
HOW MUCH WILL IT COST TO MOVE A DESK?



THE FLOOR YOU CHOOSE CAN SAVE MONEY!







Business management knows that the *big expense* of moving a desk is supplying electrical, telephone and intercommunication service in its new location. That's where the kind of structural floor you *design* into a new building can make a difference.

For example, an ordinary concrete floor provides *no* electrical outlets. Wires must be run on top of the floor, or walls and floors must be torn up to install new wiring conduit.

Concrete floors with underfloor wiring ducts offer *some* electrical outlets. However, the small duct cells are of limited capacity and are located in widely spaced grids. Moving desks and partitions may require expensive alterations.

But, with Fenestra* Electrifloor†, *unlimited* electrical availability is *built right in*. Outlets for electrical, phone or intercom service can be installed anywhere, *any time*. Desks may be moved, office layouts changed or new electrical equipment installed with a minimum of time, trouble and expense.

Exclusive 4″ handholes and large-area cells make outlet installation easier and avoid crowding wires.

And, because Electrifloor is a structural subfloor and electrical distribution system *all in one*, it actually saves money and building time, when compared with all the costs of other structural systems.

To utilize all the unique advantages of Electrifloor, your building must be designed around it. So get the facts, including cost comparisons, *before* you start your plans. Write Detroit Steel Products Company, Department AR-3, 2252 East Grand Boulevard, Detroit 11, Michigan.

*Trademark

Fenestra Nepco | ELECTRIFLOOR
TODAY'S FLOOR WITH A FUTURE...*UNLIMITED*

(*Continued from page 216*)

WOOD PRODUCTS

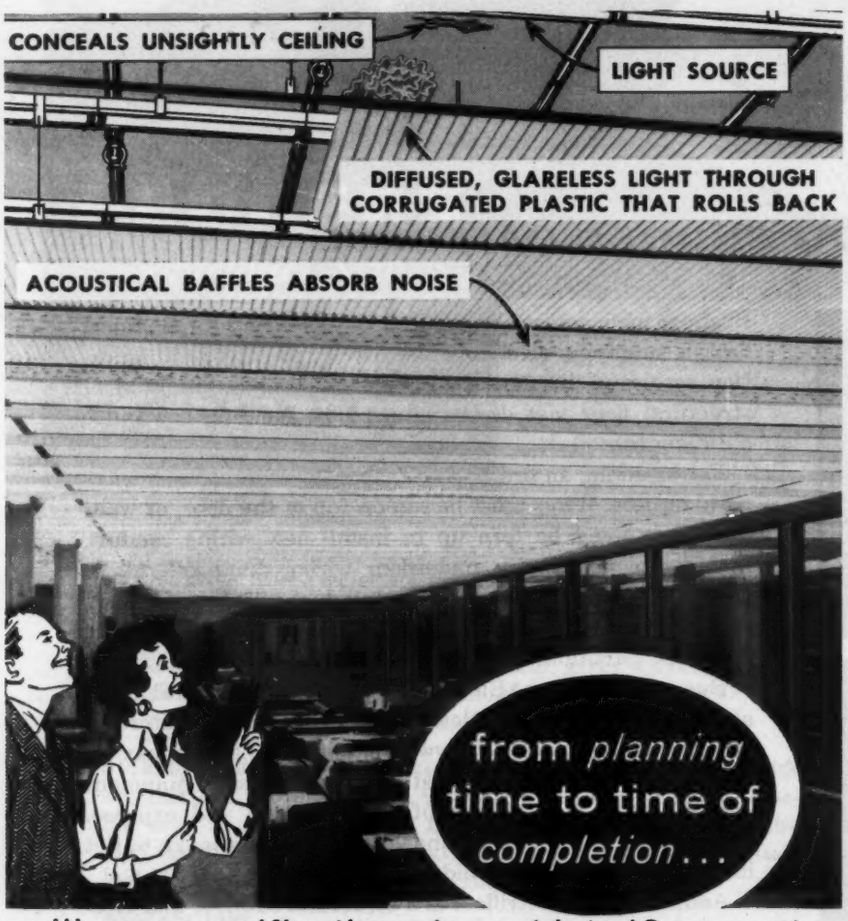
• A line of re-styled decorative fir panel doors is described in a 16-page illustrated booklet which includes decorating ideas. *Fir Door Institute, Tacoma, Wash.*

• A 12-page booklet contains selection sheets for six basic grades of redwood and includes specifications and examples of characteristics in each grade. 25¢. *Dept. 3, Eureka Redwood Lumber Co., Eureka, Calif.*

• *This Is Teco* describes and illustrates various timber design services available, without charge to architects and engineers planning structures of wood. *Timber Engineering Co., 1319 18th St., N.W., Washington 6, D. C.*

PLYWOOD

• Standard fir plywood, construction plywood (interior and exterior) and six decorative plywoods are described and illustrated in a four-page booklet. *Assoc. Plywood Mills, Inc., Box 672, Eugene, Ore.*

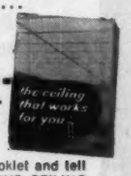


will *your* specifications be outdated?...see the *newest!* **See an Acusti-Luminus Ceiling near you!** *Lighting, sound control, air flow combined!*

The trend is to allover ceilings of glareless, shadowless light that also provide sound control and a ceiling-wide plenum for air conditioning and heating. ACUSTI-LUMINUS CEILINGS are easy to maintain. They're made from unbreakable, corrugated LUMI-PLASTIC and labeled by UL for installation under sprinkler systems. Three essential elements for modern interiors are combined at a cost that's lower than conventional illumination and sound control alone.

over 4500 installations!

See the functional beauty of an ACUSTI-LUMINUS CEILING for yourself... *send the coupon below for free illustrated booklet and location of an installation near you.*



Luminous Ceilings, Inc.
Dept. B-1 2500 W. North Ave.
Chicago 47, Ill.

Please send me your free illustrated booklet and tell me where I can see an ACUSTI-LUMINUS CEILING installation!

Name _____

Firm name _____

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City & State _____

• An 8-page catalog describes and illustrates with examples and cutaway drawings the Symons Forming System and includes sections on the care of forms and removing of form plywood and the use of Symons panel forms for slabs, column and beams. *Symons Clamp and Mfg. Co., 4249 Diversey Ave., Chicago.**

LIGHTING FIXTURES

• A 16-page, full-color catalog describes lighting fixtures, mostly chandeliers, by Lightolier.

• Descriptions, illustrations and utilization data on recessed single or continuous *Sightron* fixtures with polystyrene diffusers are contained in a 20-page catalog. *Lightolier, 11 E. 36th St., New York.**

• *Brochure GLC-19* describes, illustrates and gives prices of Gotham's "Hourglass" basic unit for direct-indirect illumination. *Gotham Lighting Corp., 37-01 31st St., Long Island City 1, N. Y.*

• A folder containing 10 illustrated brochures describes *Wakefield* lighting equipment with detail drawings, specification data and utilization charts. *F. W. Wakefield Brass Co., Vermilion, Ohio.**

ROOF DRAINS

• Manual No. 54–1 contains 48 pages of detail drawings, photographs, descriptions and specifications of roof drains and their installation. *J. A. Zurn Mfg. Co., Plumbing Div., Erie, Pa.**

DECORATIVE PLASTIC SHEETS

• *Publication No. LP2-1954* includes the latest revisions of standards and recommended practices for fabricating and applying *Laminated Thermosetting Decorative Sheets.* 24 pp. *National Electrical Mfrs. Assoc., 155 East 44th St., New York 17, N. Y.*

D. C. MOTORS

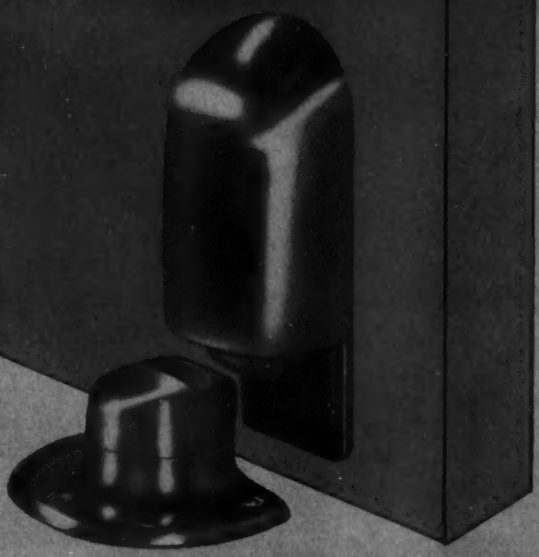
• A 12-page catalogue fully describes and illustrates *Reliance* "Super T" line D. C. motors for industry. *Reliance Electric and Engineering Co., 1076 Ivanhoe Rd., Cleveland 10, Ohio.*

ACOUSTICAL MATERIAL

• A 24-page brochure illustrated with photographs and detail drawings includes a description, selection chart, sound-absorption coefficient charts, specifications and installation information of *Armstrong acoustical material. Armstrong Cork Co., Lancaster, Pa.**

(*Continued on page 278*)

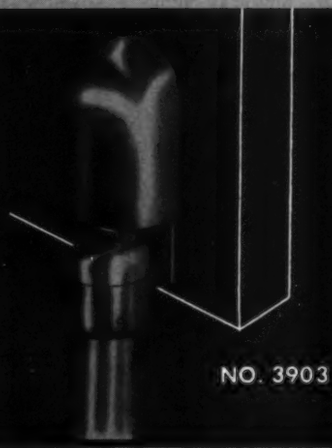
NEW ADJUSTABLE DOOR STOP



NO. 3900
(Was 3504)

- Turret floor strike instantly changes from HOLDER to STOP.
- Strike contour rounded . . . prevents damage to polishing and scrubbing heads of cleaning machines.
- Both THROW and TENSION of roller latch are adjustable.
- Body is "KID-PROOFED"—rounded contours and concealed screws.
- Made of solid corrosion-resistant cast bronze.

No. 3903 Holder-stop is identical to 3900 except turret head is mounted on extra heavy steel pipe. When used on door swinging over steps, pipe is set in concrete.



NO. 3903

SARGENT & GREENLEAF INC.

ROCHESTER 21, NEW YORK

(*Continued from page 276*)

DOORS AND WINDOWS

• A 16-page, illustrated catalog describes and gives specifications and detail drawings of folding doors and includes a chart of colors available. *Modernfold Door Co., Inc., 439 Madison Ave., New York 22, N. Y.*

• Sound reduction doors for building and industrial use are described and illustrated in an eight-page bulletin of engineering information. *Jamison Cold Storage Door Co., Sound Reduction Door Div., Hagerstown, Md.**

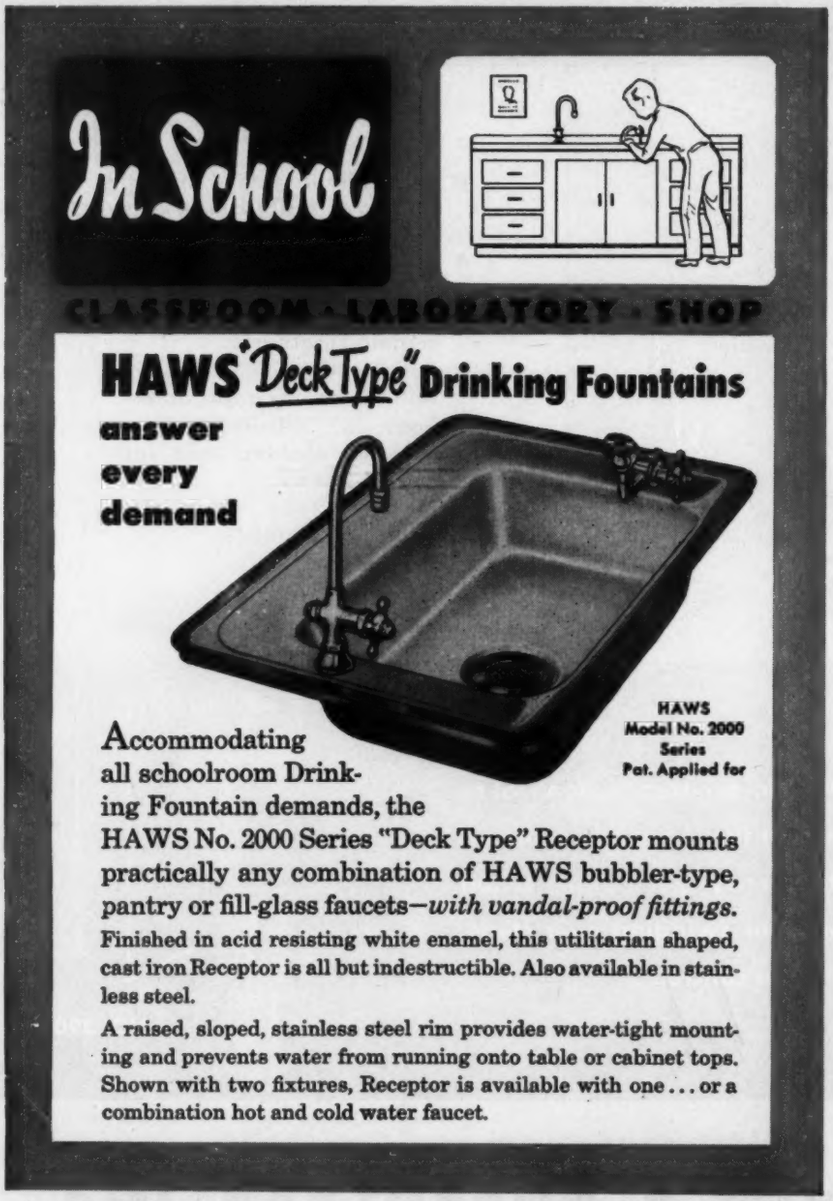
• *Arislide Aluminum Sliding Windows* is a six-page folder containing detail drawings, specifications and photographs of windows for residential and commercial use.

• *Arislide Steel Sliding Doors* is an illustrated 8-page catalogue giving detailed specifications for sliding doors for all types of residential and commercial construction. *N. K. Juvel, Steel Windows Div., Michel & Pfeffer Iron Works, Inc., 212 Shaw Rd., South San Francisco, Calif.*

• *Fenestra Hollow Metal Swing Door Units* describes each of the four types of doors and gives installation instructions for solid masonry, brick veneer or frame and in partitions. *Detroit Steel Products Co., 3113 Griffin St., Detroit 11.**

• *Doors for Industry and Aviation* contains specifications, detail drawings and descriptions of steel doors. 16 pp.

• The *1955 Catalog of Revolving Doors* includes planning data, specifications, detail drawings and photos of actual installations. 28 pp. *International Steel Co., Evansville, Ind.**



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PLASTIC TILES

• Types, sizes and color of *Tilemaster* molded plastic tiles are described in a 4-page folder from *Tilemaster Corp., 1415–21 Diversey Pkwy., Chicago 14, Ill.*

ELEVATORS

• *An Explanation of Otis Autotronic Elevatoring* describes the operation of this system with or without attendants in the six basic elevator traffic programs.

• *Otis without Attendant Elevators* describes and illustrates the automatic system operated by the passengers.

• *An Explanation of Otis Automatic Program Selection* explains how this system chooses the operating program which matches the traffic demand, puts the program into operation and maintains the proper dispatching interval automatically. *Otis Elevator Co., 260 11th Ave., New York 1, N. Y.**

PLASTIC PIPES

• Technical data including chemical resistance tables, installation and fabrication data, standard sizes, pressures and prices of *Dur-Ace* general-purpose, corrosion-resistant plastic pipes is offered in 6-page, illustrated folder. *American Hard Rubber Co., 93 Worth St., New York 13, N. Y.*

CEILING AND WALL PANELS

• A four-page booklet describes and gives a color chart of prefinished hollow-core ceiling and wall paneling and includes photographs showing typical *Korelock* interiors. *Marsh Wall Products, Inc., Dover, Ohio.*

(*Continued on page 280*)

BETTER *Light* FOR BORDEN LAB

New Research Building Features Window Walls of Coolite Wire Glass

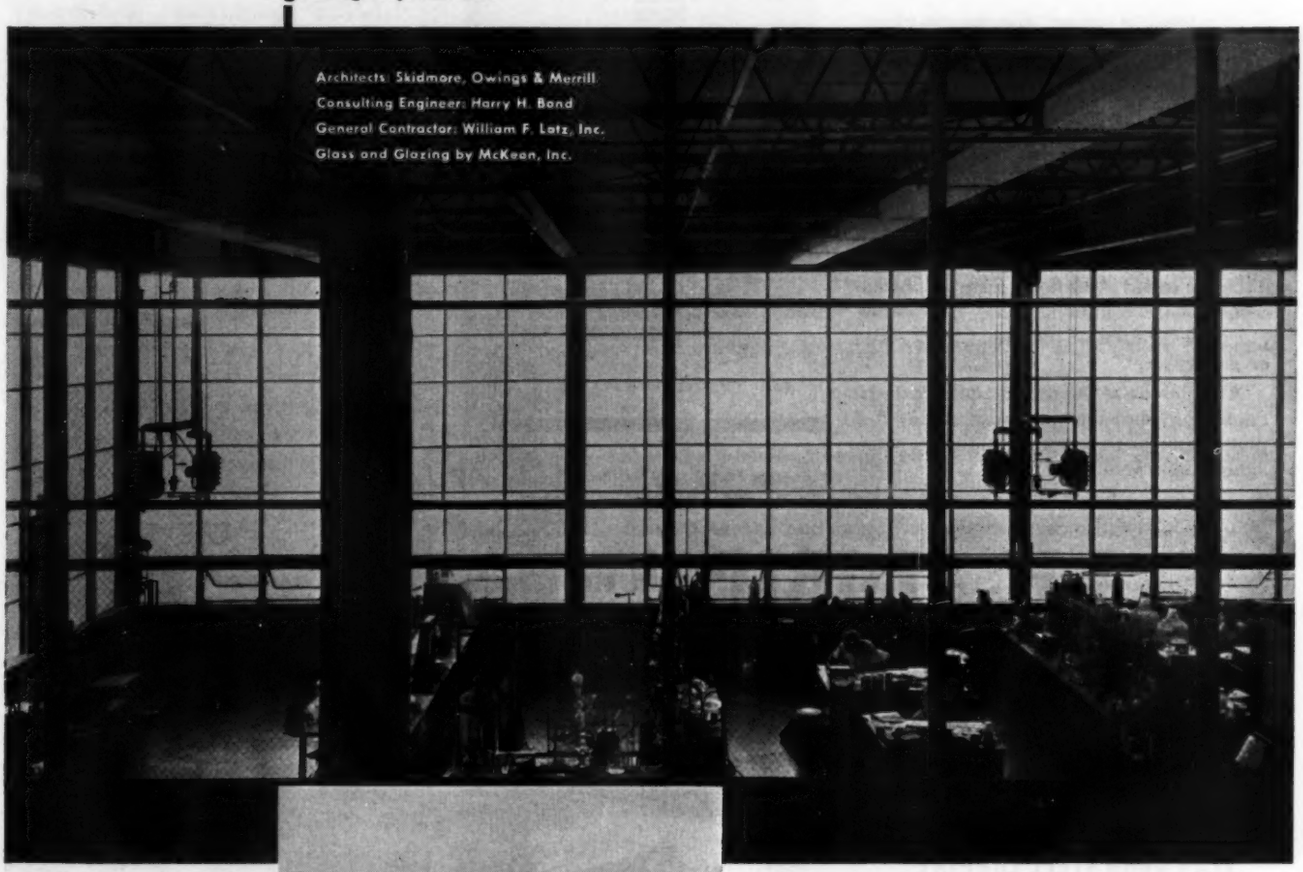
The importance of good illumination to industrial research is reflected in these bright walls of Coolite, Heat Absorbing and Glare Reducing Glass. Interiors are flooded with natural illumination, free of the harmful effects of "raw" sunlight that cause optic and physical discomfort.

4800 sq. ft. of Coolite makes these new laboratories appear larger, brighter, more comfortable . . . with plenty of conditioned light for the most exacting scientific work.

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Coolite Wire Glass protects against shatter damage, resulting from fires. This Approved Fire Retardant No. 32 tends to bottle up and thus prevent the spread of flames. And the Coolite wire glass adds beauty to the exterior—the clean, blue hue harmonizes with the crisp, modern design . . . its benefits minimize need for unsightly painted screens or blinds.

For maximum comfort and protection specify Mississippi Coolite Heat Absorbing and Glare Reduced Wire Glass. Available through leading distributors of quality glass. Mississippi offers a wide variety of translucent, light diffusing glass patterns for every glazing requirement.



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Consulting Engineer: Harry H. Bond
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Glass and Glazing by McKeon, Inc.



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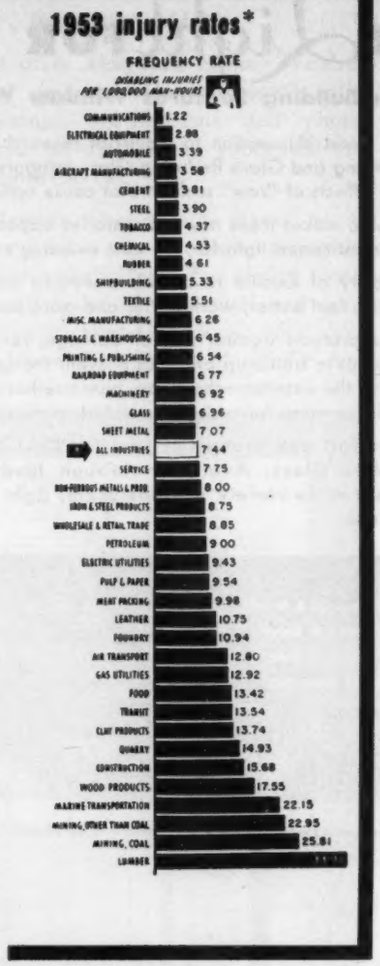
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. . . that safety against slipping on plant floors is an unseen factor in the balance sheet . . .

. . . that every plant equipped with ALGRIP Abrasive Rolled Steel Floor Plate reduces its accident rate . . . its lost man-hours of production . . . its compensation payments . . . and its insurance rate . . .

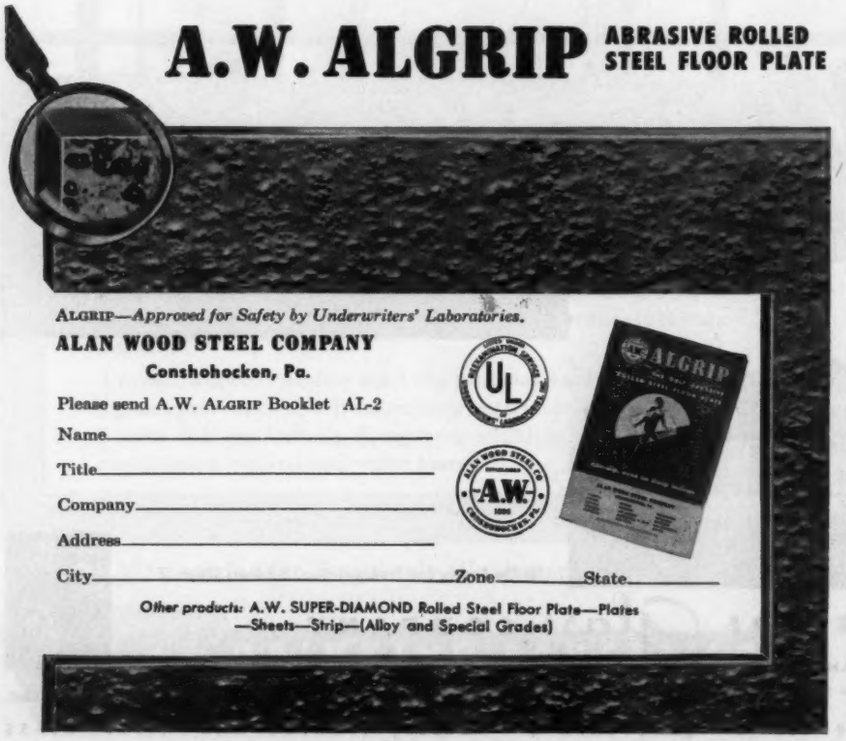
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ALGRIP—*Approved for Safety by Underwriters' Laboratories.*

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Other products: A.W. SUPER-DIAMOND Rolled Steel Floor Plate—Plates —Sheets—Strip—(Alloy and Special Grades)

A.E. LITERATURE

(*Continued from page 278*)

HEATING EQUIPMENT

• An eight-page booklet offers illustrations and a complete index of *Fiberglas Aerocor Thermal and Acoustical Insulations. Owens-Corning Fiberglas Corp., Toledo, Ohio.**

• *Bulletin AD-139* describes the use of commercial and industrial burners for heating school buildings. 4 pp, illus. *Cleaver-Brooks Co., 326 E. Keefe Ave., Milwaukee 12, Wis.**

• General information, capacity data, selection procedure, method of installation, roughing in dimensions and architectural specifications of *Permiheat Baseboard Convectors* is supplied in a 12-page catalog. *Young Radiator Co., Racine, Wis.**

• Date on the use of Ruud Automatic Gas Heaters in public housing projects is presented in a 24-page, illustrated booklet. *Ruud Mfg. Co., 2934 Smallman St., Pittsburgh 1, Pa.*

• A description of commercial steel boilers with photographs, detail drawings, dimension and space requirement charts, and wiring diagrams is contained in an eight-page brochure. *The National Radiator Co., Johnstown, Pa.**

• *Vari-Vac automatic temperature control system* for schools is described in an eight-page, illustrated booklet containing photos, drawings and technical data. *C. A. Dunham Co., Dept. E., 400 W. Madison St., Chicago 6, Ill.**

CLOTHES DRYER

• A four-page illustrated folder describes the operation of *Herbster Heat-N-Dry* clothes dryer mounted on top of a low-boy gas furnace, with dimension and specification charts and detail drawings. *Herbster Products Co., 877 Addison Rd., Cleveland 3, Ohio.*

LITERATURE REQUESTED

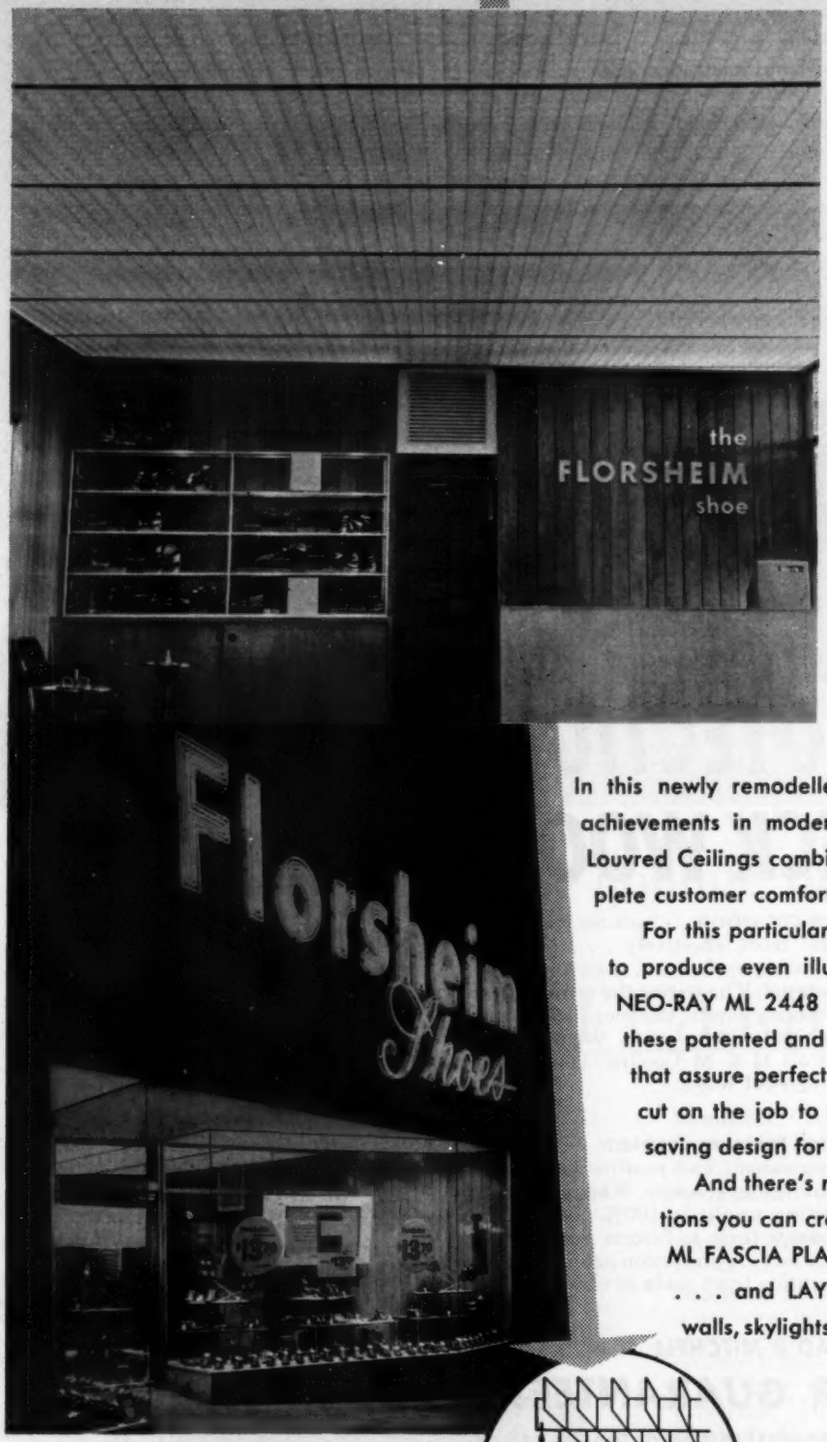
• The following individuals request manufacturer's literature:

T. E. Eden, Architect, Suites 4 and 5, Lower Level Adams Hotel, Phoenix, Ariz.

John M. Huddleston, Architect, 1904 Elizabeth St., Shreveport, La.

Thomas M. Tebbetts, Architectural Draftsman, 7028 Kingsbury Blvd., University City 5, Mo.

a leading retailer brings its stores up to date . . .



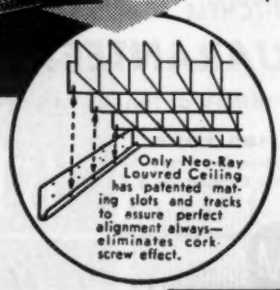
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NEO-RAY
LOUVRED CEILING

In this newly remodelled Florsheim Store, you'll see the latest achievements in modern design. Naturally you'll see NEO-RAY Louvred Ceilings combining beauty with correct lighting for complete customer comfort.

For this particular job, the request was for modern lighting to produce even illumination without shadows. The solution: NEO-RAY ML 2448 Louvred Ceiling. The reason? Just look at these patented and exclusive features: mating slots and tracks that assure perfect alignment . . . stock sections that can be cut on the job to meet any requirements . . . simple labor-saving design for low cost installation.

And there's no limit to the interesting lighting combinations you can create with ML LOUVRED CEILINGS . . . plus ML FASCIA PLATES for various designs with drop ceilings . . . and LAY-IN and HINGED LOUVRES for curtains, walls, skylights, wall cases, displays and special effects.*



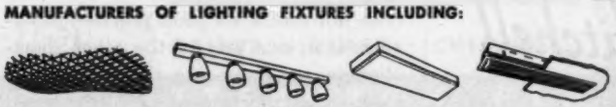
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THE RECORD REPORTS

(*Continued from page 12*)

While the C.I.B. activities are confined to the Greater New York area, the effect of its pioneering has been felt in many other sections of the country — cities in Florida, Michigan and Texas have already demonstrated interest in forming similar groups.

The C.I.B. holds from five to six luncheon meetings a year, the feature of the June meeting being a field trip to an outstanding concrete job within convenient traveling distance. Programs have ranged from talks by authorities like Professor Gustave Magnel from Belgium, prestressed concrete expert and proponent, to panel discussions of controversial subjects such as admixtures (full report in *Architectural Record*, June 1953) and winter concreting. As Chairman Corbetta puts it, "We throw a lot of matches around — a fire is bound to start somewhere!"

Probably the most noteworthy achievement of the C.I.B. to date is the program of its Action Committee. The Committee's objective is to establish not only proper standards of performance for those engaged in the production and placing of concrete, but also means for verifying that the standards are being met. Here are some of the major recommendations:

1. Testing laboratories should be inspected and certified as to adequacy of facilities and personnel.

2. Standards should be established for the facilities and personnel of ready-mix concrete plants. The producer would issue a certification of the ingredients in the ready-mix concrete.

3. C.I.B. members should subscribe to a code of ethics. This would be the nature of voluntary agreements to refrain from certain practices that are detrimental to good concrete construction.

4. A Committee on Grievances, Complaints and Investigations should be established. Such a committee would deal with complaints on violations of the code of ethics, interpretations of rules of the C.I.B., and failures of concrete work.

5. Certification of concrete inspectors and contractors' superintendents should be studied. The committee felt that since designers of structures must be licensed, some standards should be set up for superintendents and inspectors supervising the construction to insure that the intent of the designer is carried out in the field.

The potentialities of the C.I.B. were aptly forecast by Walde G. Bowman, Editor of Engineering News-Record, in a talk at last year's June meeting, which was held in Pier 57, under the Hudson River. Mr. Bowman pointed out that while the concrete industry has continuously raised the standard of high quality concrete through research, it has neglected to follow through to see that the results are put into practice properly in the field.

Mr. Bowman opined that the real job is to persuade the laggards who are satisfied with mediocre concrete to mend their ways. He felt that the code of good practices drawn up by the C.I.B. would be the best form of enforcement. "Once it is recognized that anyone who does not subscribe to the C.I.B. code and does not follow its good practice provisions is in one way or the other short-changing or damaging the public," he said, "the enforcement problem should be easy."

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ULTIMATE PROTECTION OF WETTED DECK WOOD



TAKE ROUGH-CUT WOOD . . . because rough-cut wood "wets" more effectively . . . presents more evaporating surface . . . than any other suitable material. The wetter the evaporating deck of a cooling tower, the more efficiently and economically it operates. Wetted deck surfaces of all H & M Cooling Towers are made of rough-cut wood.



THEN KOPPERS PRESSURE-CREOSOTE . . . because the most permanent and positive wood preservative known is creosote. Koppers Pressure-Creosoting results in 100% penetration by 162 elements toxic to fungus growth and parasites . . . *and* . . . protection against chemical deterioration from acids in water.

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Alcoa Building, modern home office of the Aluminum Company of America, Pittsburgh, Pa., was designed by Architects Harrison and Abramovitz, New York, N. Y.

Washrooms of another notable building finished in Carrara Glass

● Over and over again leading architects turn to Carrara Structural Glass when it comes to the specification of a wall finishing material for washrooms in important new buildings. And Carrara Glass has many outstanding qualities which make it worthy of this architectural selection.

CARRARA GLASS IS:

True Glass of the finest quality. Every piece is mechanically ground and polished. It permits joints that are true and even, without lippage or warpage.

Beautiful. Available in ten lovely colors, gleaming Carrara Glass adds a note of distinction and dignity to every building in which it is used.

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Here is rubber flooring
at its economical best

The rubber flooring in this heavy traffic area may be *initially* more expensive than some other types of flooring . . . but, because it is Wright Rubber Tile, its special qualities make it well worth while!

WRIGHT'S UNSURPASSED TOUGHNESS is proven in the many 20- and 30-year installations which are beautiful and trouble-free to this day. Long life far offsets the initial savings of a "cheaper" floor.

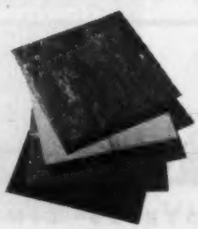
WRIGHT'S HIGHER DENSITY makes it harder to soil, easier to clean . . . a big savings on upkeep.

EXCEPTIONAL RESILIENCE reduces fatigue, footstep noise, and the danger of slipping.

WIDE COLOR RANGE offers a balanced selection of 30 colors, marbleized and terrazzo.

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WRIGHTEX
WRIGHTFLOR
WRIGHT VINYL TILE



WRIGHT
RUBBER TILE
The 100-Year Floor!

5532

THE RECORD REPORTS

(*Continued from page 24*)

Holland, was the stained glass designer.

The structure of the nave is of steel rigid frames; the concrete floor is supported by a series of reinforced concrete rigid frames.

1



2



3



4



1. The Shepherds; the Flight into Egypt; the Three Kings; 2. the Circumcision; the Child Jesus in the Temple; John Baptising Christ; 3. the Transfiguration; "Suffer the little children to come unto me"; the Raising of Lazarus; 4. the Miraculous Draught of the Fishes; the Sermon on the Mount; the Temptation of Christ



Dunham Vari-Temp Cabinet inverted on the wall of St. Bartholomew School, Chicago, Ill.
Architect: Barry and Kay, Chicago, Ill. Heating Contractor: Northwestern Heating & Plumbing Co., Evanston, Ill.

How to heat and cool with just one unit...

DUNHAM VARI-TEMP

Specify Dunham all-weather Vari-Temp® and you have *more* than a heating system . . . *more* than a cooling system. You have *both* . . . and with *just one unit.*

Dunham Vari-Temp is a simple solution for your clients who want year-round air-conditioned comfort in their buildings but can't afford costly space-using central system ductwork. Vari-Temp eliminates ducts since a single riser can supply hot water for heating, chilled water for cooling to each unit.

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Versatile Vari-Temp not only heats and cools with water, but also heats with steam. Furthermore, you can mount this newly expanded line of comfort conditioning, double-duty cabinets on the floor, walls or ceiling . . . fully or partially recessed . . . or even completely conceal them.

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New Dunham Cabinet Unit Heater. Moderately priced cabinet unit heaters—for steam and hot water heating only in doorways, lobbies, corridors.

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RADIATION • CONTROLS • UNIT HEATERS • PUMPS • SPECIALTIES

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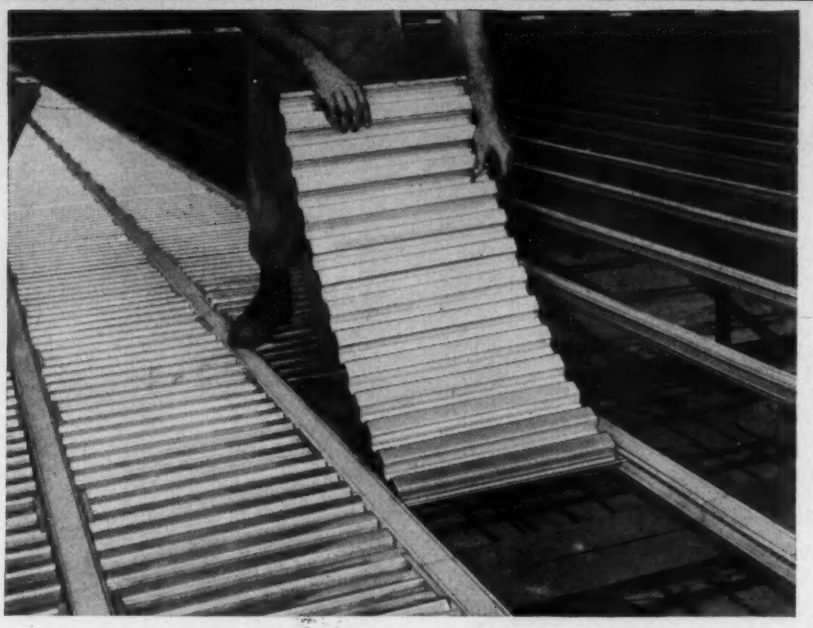
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WHAT'S NEW in roof deck?



Ingersoll Aluminum Roof Deck:

No painting necessary, fast, easy installation

introduces new concept to roof deck engineering.

This new roof deck, the result of extensive research and development by Borg-Warner engineers, provides a distinctive industrial ceiling at important savings in time, trouble and money.

1. *Eliminates field and maintenance painting.* Consists of aluminum panels supported by galvanized steel sub-purlins—both materials permanently strong and attractive, require no external finish.

2. *Engineered for fast positive installation.* A full-floating modular system permits freedom for expansion and contraction. To erect, just weld sub-purlins to building purlins and secure panels to sub-purlins with simple slide-on clips.

3. *Has insulation value.* Aluminum panels reflect radiant heat, materially reduce insulation requirements.

4. *Has high load-bearing capacity.* Certified copies of Pittsburgh Testing Laboratory tests showing exceptional strength will be promptly submitted on request.

Other advantages. Continuous beam action of long sub-purlins; ideal accessory and utility accommodation; built-in guttering which prevents roof adhesive drippage. High reflectivity increases efficiency of any lighting system.

Ingersoll Porcelain Enameled Roof Deck

Designed on same new principles as Ingersoll Aluminum Roof Deck. Steel decking is double-coated with tough, chemically inert porcelain enamel. Ideal for use where moisture or corrosion is a problem or where porcelain's gleaming look is specially desirable.

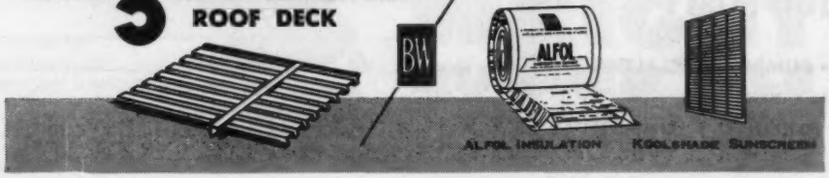
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Illustrated bulletins giving full details and data on Ingersoll Aluminum and Porcelain Enameled Roof Decks are now available. Write *today!* Learn all the facts. This information may be invaluable on your next job!

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ROOF DECK

REFLECTAL CORPORATION
A subsidiary of Borg-Warner Corp.
310 S. Michigan Ave., Suite 2804
Chicago 4, Ill.



THE RECORD REPORTS

WASHINGTON
(Continued from page 38)

ever, launched the third advance planning program.

More Military Building

In the area of military public works, planned expenditures would increase by a relatively modest $257 million. Most of this would go to the Air Force for its use at installations throughout the world.

For Housing Expansion

Larger increments have been proposed to support expansion of housing on all fronts. The urban renewal and rehabilitation talked up so strongly last year are beginning just now to show fruits of the campaign. "Workable program" applications are being received regularly at Housing and Home Finance Agency field offices, and the President proposes an additional capital grant authority of $500 million to take care of needs for three years. Annual contributions for public housing would advance from $67.7 million this fiscal period to $87 million next. President Eisenhower asked Congress to authorize 35,000 additional units of low-rent public housing for each of the next two fiscal years.

Increase for VA Building

Three new Veterans Administration hospitals are scheduled for groundbreaking in fiscal 1956. Two are 1000-bed general hospitals at Cleveland and San Francisco; the third is a 680-bed addition to the present Long Beach, Calif., hospital. A total of $56 million in VA construction funds has been asked, compared with $40 million this fiscal year.

Funds for Building Data

The $1 million sought for improving construction statistics would be used by both the Business and Defense Services Administration and the Bureau of Labor Statistics. It is planned to enlarge the "new construction" series and to obtain better data on alteration and repair activity. Said the budget:

"Construction is a major economic activity, carried on by thousands of small builders scattered throughout the nation. Because of its sensitivity to economic conditions and the dependence

(Continued on page 290)

Structural Facing Tile in Contemporary Hospitals



STRUCTURAL FACING TILE combines

wall and finish, helps sanitation, saves maintenance

This hospital waiting room is designed to extend a warm welcome that will never wear out. Wall structure and a beautiful, permanent ceramic finish are economically combined in a single material—time-tested structural clay Facing Tile.

In the interest of better Facing Tile construction these companies have contributed to this advertisement.

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McNEES-KITTANNING CO.
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NATCO CORPORATION
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WEST VIRGINIA BRICK CO.
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This seal is your assurance of highest quality Facing Tile.



Clear glazed Facing Tile provides light-colored, easily-cleaned walls in this hospital kitchen. Bird S. Coler Memorial Hospital, New York, N. Y. Bureau of Architecture, New York City Department of Public Works.



Light green glazed Facing Tile is used in this delivery room both to aid sanitation and furnish a helpful background color for exacting visual tasks. Augustana Hospital, Chicago, Ill.; Schmidt, Garden and Erickson, architects.



Fire-safety, cheerful look, sure protection from sound transmission are among the benefits provided by Facing Tile in this patient's bedroom. Molly Stark Sanitarium, Canton, Ohio. Harry C. Frank, Architect.

New Catalog *showing shapes, sizes, specifications, is available to you without cost. Address Dept. AR-35 of any office listed here.*

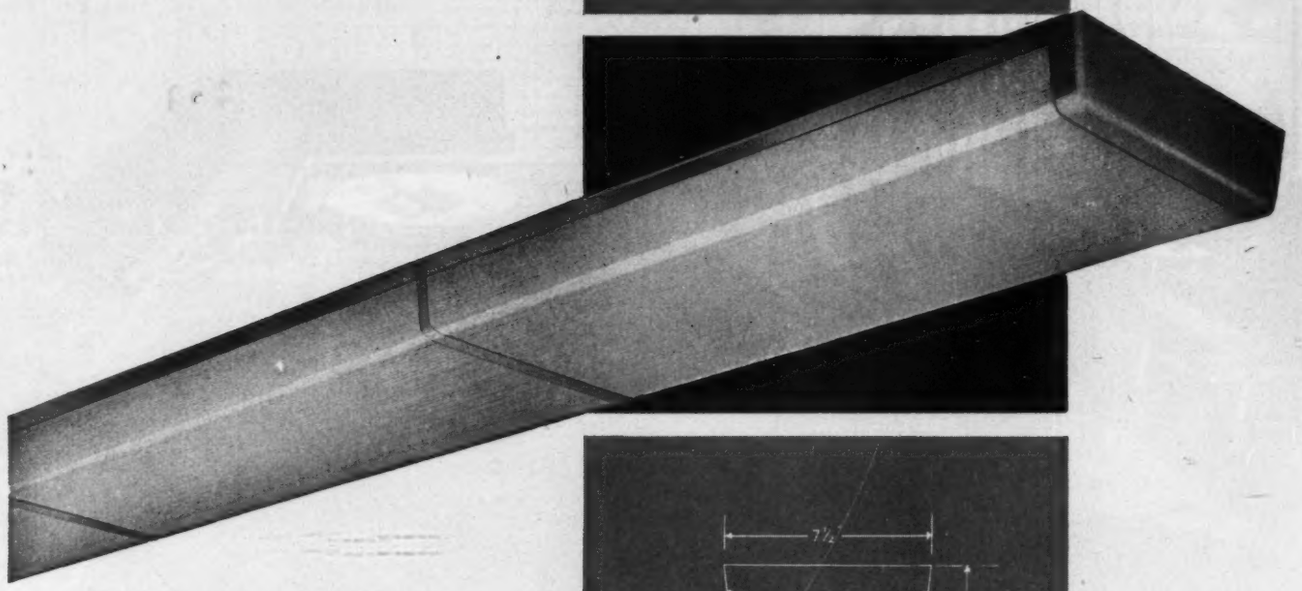
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2556 Clearview Avenue, N. W., Canton 5-2329, Canton 8, Ohio
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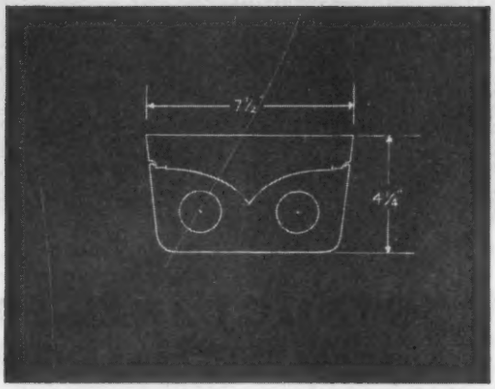
sightron

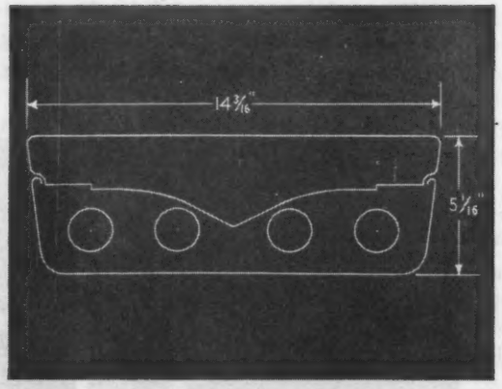
in four and two light versions



fully diffused lighting ...trim, crisp design

Our highly efficient Sightron series is now available in a new four light version. Both four and two light fixtures offer trim, unobtrusive design that maintains the architectural integrity of any area. Both now have concealed hinges at side of diffuser to make maintenance simple, and both now have rapid start ballasts to produce instantaneous lighting. Ribbed plastic diffusers give an even glow of fully filtered light without shadows. May be used individually or in continuous runs. Quickly and easily installed. Ends are white enamel. Accessory pieces to match.





End section drawings above show placement of lamps in two light (top) and four light versions of Sightron fixtures.

Write today for free brochure of architectural lighting by Lightolier.

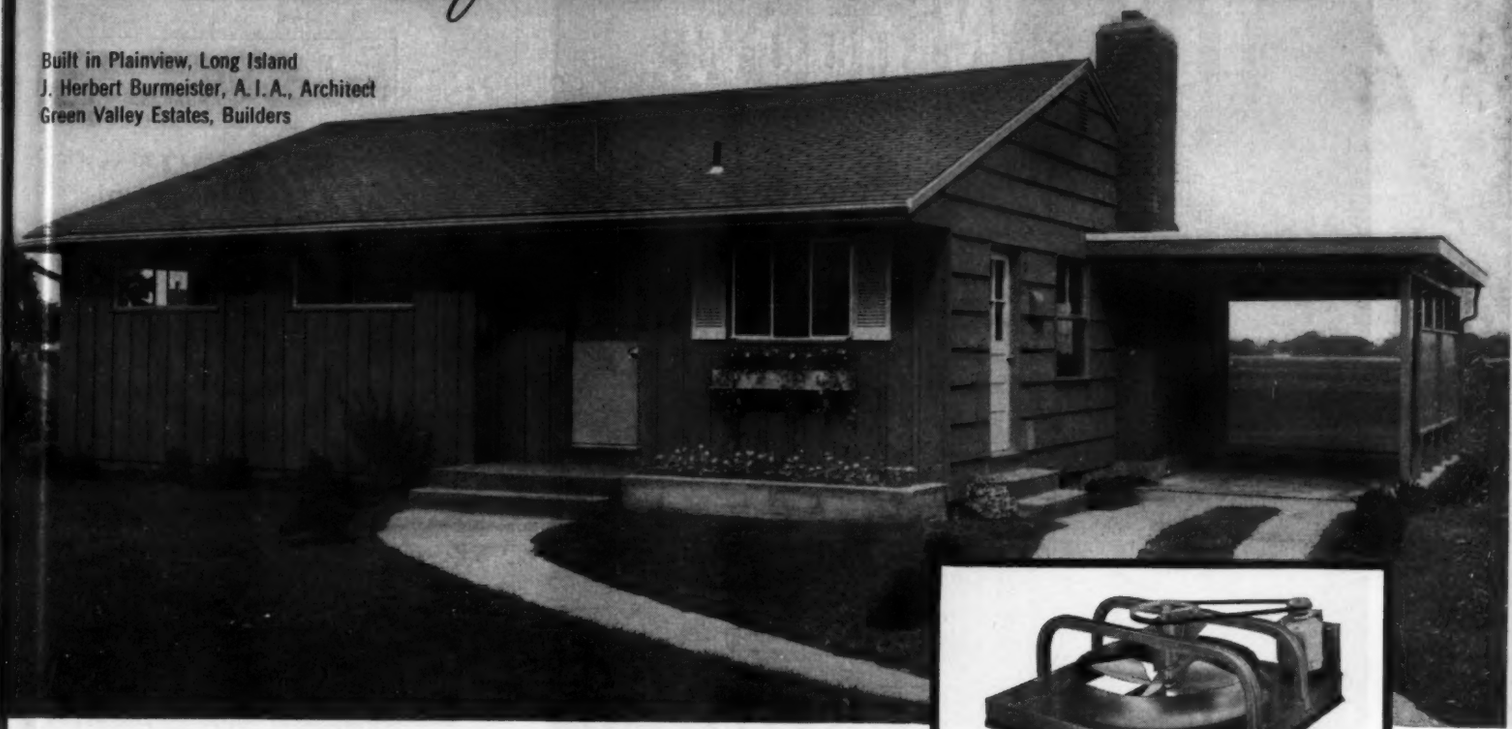
Lighting by **LIGHTOLIER**

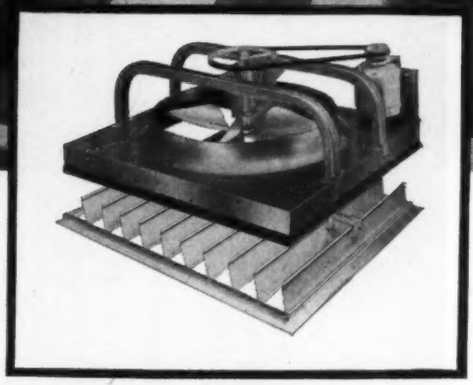
JERSEY CITY 5, NEW JERSEY

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"Guide *for the* Bride" House

Built in Plainview, Long Island
J. Herbert Burmeister, A.I.A., Architect
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Comfort at low cost with Hunter Attic Fan



Comfort blends with beauty in "The Bride's House."

Hunter Attic Fan gives carefree cooling pleasure all summer long. Automatic shutter harmonizes with modern interior of home. The compact Hunter Attic Fan assembly rests on attic floor, requires less than 18" clearance. When fan is turned on, hot air exhausts through attic louvers. Cool, fresh outside air is pulled through open windows and sliding terrace door, causing house temperature to drop 10 to 20°.

■ "The Bride's House," a contemporary ranch-style home, is described as a "thoughtful" house.

Feature after feature, from the smartly designed exterior to the refreshingly cool interior (made possible by a Hunter Attic Fan) lends a touch of luxury living at common sense price.

The choice of the Hunter Attic Fan is one more indication of the growing preference for the one attic fan that gives you all four of these features:

1. Low Initial Cost—Quality is never sacrificed in any Hunter Fan. Yet the Hunter Attic Fan is available at lowest possible cost.

2. Fits Any Home—There's a Hunter Attic Fan for every home, every climatic condition. Five sizes available, with certified ratings from 4700 to 16,000 CFM.

3. Ease of Installation—The compact and easy-to-install Hunter unit is complete with automatic ceiling shutter and all accessories. No extras to build or buy.

4. Dependable Service—You can rely on Hunter's 69-year record of experience in cooling and ventilating fans. It is your assurance of highest quality products, maximum performance and minimum care.

See why more and more architects and builders prefer Hunter Package Attic Fans. Write today for your free copy of "Cool Every Room With A Hunter Attic Fan."

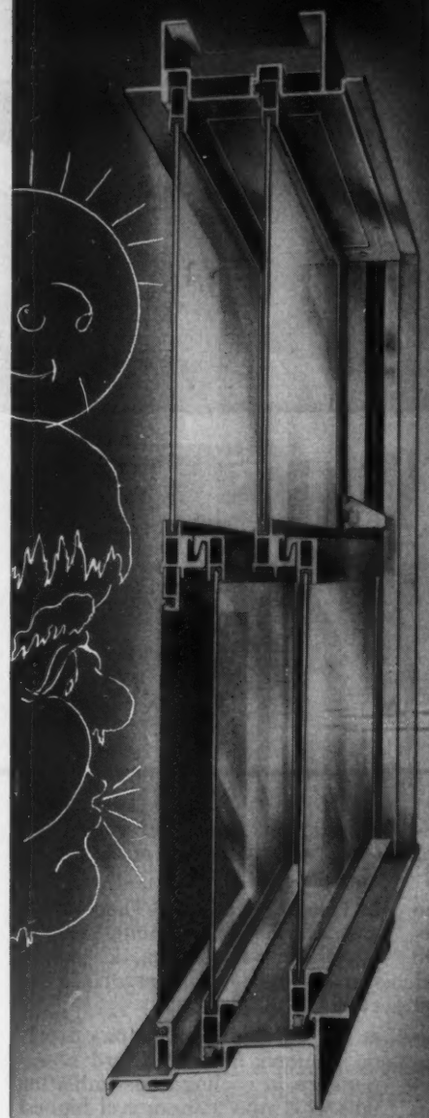
See our Catalog in Sweet's File

HUNTER

Hunter SINCE 1886 *Package Attic Fans*

HUNTER FAN AND VENTILATING COMPANY
396 S. Front St., Memphis 2, Tenn.

This Window STOPS WIND



Testing Laboratories report extruded aluminum Fleetlite most airtight of all operating windows.

DUST

Mohair weatherstripping and snug interlacking double sash seal out dust.

NOISE

Double windows protect hospitals, dormitories, offices, hotels and other buildings from outside noise.

HEAT

Air space between outside and inside sash insulates against heat, makes air conditioning practical.

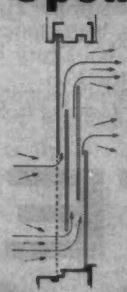
COLD

Complete weatherstripping and double sash blocks cold, saves fuel costs.

Yet Opens Instantly – Easily

All Sash are cleaned from the inside. No Maintenance, Nothing to Store.

Sash adjustable for indirect screened ventilation



☐ Lists and data on major installations
1. Hospitals 2. Dormitories 3. Hotels 4. Offices
☐ Chart of Standard Window Sizes
☐ Typical Installation Details
☐ Samples of Extrusions

Gentlemen: Please rush the material checked above.

Name.....

Address.....

City.....

Fleetlite
AMERICA'S Finest WINDOW

FLEET OF AMERICA, INC., 407 Dun Building, Buffalo 2, New York

WASHINGTON

(*Continued from page 286*)

placed upon it by so many related activities, adequate information on construction is of key significance in appraising economic trends. Estimates now available are limited to the number of new nonfarm dwelling units started and the dollar volume of all new construction activity. The latter series is based on scattered data and can be relied on to reflect only long-term trends or substantial changes in activity."

The new budget also seeks $500,000 for an intercensal housing survey.

NEW AIDS PROPOSED FOR HOSPITAL CONSTRUCTION

Federally-insured private loans for hospital and other health facility construction became a part of the Administration program for "better health for a stronger America" with submission to the Congress of the President's Health Message. The five-page message also included recommendations on meeting the costs of medical care (the "reinsurance" proposals rejected by the last Congress), health personnel needs, public health programs, mental health, juvenile delinquency and international aspects of health.

The section on "Stimulating the Construction of Health Facilities" was an addition to the Administration's previous proposals in the field of health and is intended — Secretary of Health, Education and Welfare Oveta Culp Hobby assured a news conference later — to complement, not to replace the Hill-Burton hospital construction program. The President asked the Congress to authorize Secretary Hobby to insure mortgage loans made by private lending institutions for the building of hospitals, clinics, nursing homes and other health facilities.

"Many communities in the United States today lack the hospitals, clinics, nursing homes and other modern technical facilities required for the protection of the people's health," the President wrote. "In other communities, structures are antiquated or otherwise deficient in construction or equipment.

"Present methods of financing are not always satisfactory in meeting this problem. Many sponsors and operators are

(*Continued on page 292*)

Because someone did NOT specify

CAST IRON SOIL PIPE



You're looking at the basement floor of a home in Chicago. When heavy rains overloaded the street sewer, water backed up in the house sewer line. The nonmetallic soil pipe could not take the overload. Joints failed, the cellar was flooded, and the defective sewer had to be dug up and replaced. If someone had specified **Cast Iron Soil Pipe** originally, heavy expense and inconvenience would have been avoided.

When you *specify* **"Cast Iron Soil Pipe"** you get a rugged line with joints packed with oakum and caulked with molten lead—by an accredited craftsman. Roots don't invade cast iron. Joints in **Cast Iron Soil Pipe** have resiliency that resists damage from settling or shock. In dwellings, public buildings and industrial plants you can assure permanence of the sanitary system. From street to rooftop, specify **Cast Iron Soil Pipe.**

PERMANENT CAST IRON SOIL PIPE

has *all* these advantages

- Rugged metallic strength
- Zero moisture absorption
- Permanent tightness of joints, with flexibility
- Acceptance in *all* codes for use from street to roof



CAST IRON SOIL PIPE INSTITUTE

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☐ Send me_____copies of your new 12-page booklet "Best in the Long Run" that shows—with actual photographs and authenticated captions—what can happen to lines that aren't *Cast Iron.*

Name_____

Address_____

City_____ Zone_____ State_____



Carol—Edna—Hazel . . . did *their* warnings provide THE TIME NEEDED . . . for EVERY safeguard—EVERY precaution

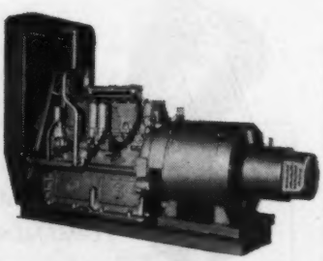
Temporary expediency *will not* guarantee essential lights and power.

That's why Architects are recommending the installation of the rugged, dependable automatic "standby power" of United States Motors Engine-Generators for schools, hospitals, prisons, banks, hotels, public buildings of every type.

In every size—for every requirement—United States Motors Corporation has built engine-generators for over 60 years to supply "continuous" or standby "emergency" power.

The complete line includes over 300 models from 300 watt hand-portables for home use, to 250 KW stationary Units for Municipalities.

Insist upon U.S. Motors standby "emergency" lights and power in all major installations. When specifications demand the unusual, United States Motors will build to your requirements. Facts, details, specifications listed in Sweet's File.



For additional information, write:

UNITED STATES MOTORS CORPORATION

351 Nebraska Street, Oshkosh, Wisconsin

THE RECORD REPORTS

WASHINGTON

(*Continued from page 290*)

unable to qualify for grants under the recently extended Hospital Survey and Construction [Hill-Burton] Act. Sponsors of health facilities often find it difficult to obtain private capital for construction.

"In other fields, Government-insured loans have consistently helped produce the new construction required in the urgent national interests. The tested procedures developed by such successful Government guarantee programs as these should now be used to stimulate construction of additional health facilities."

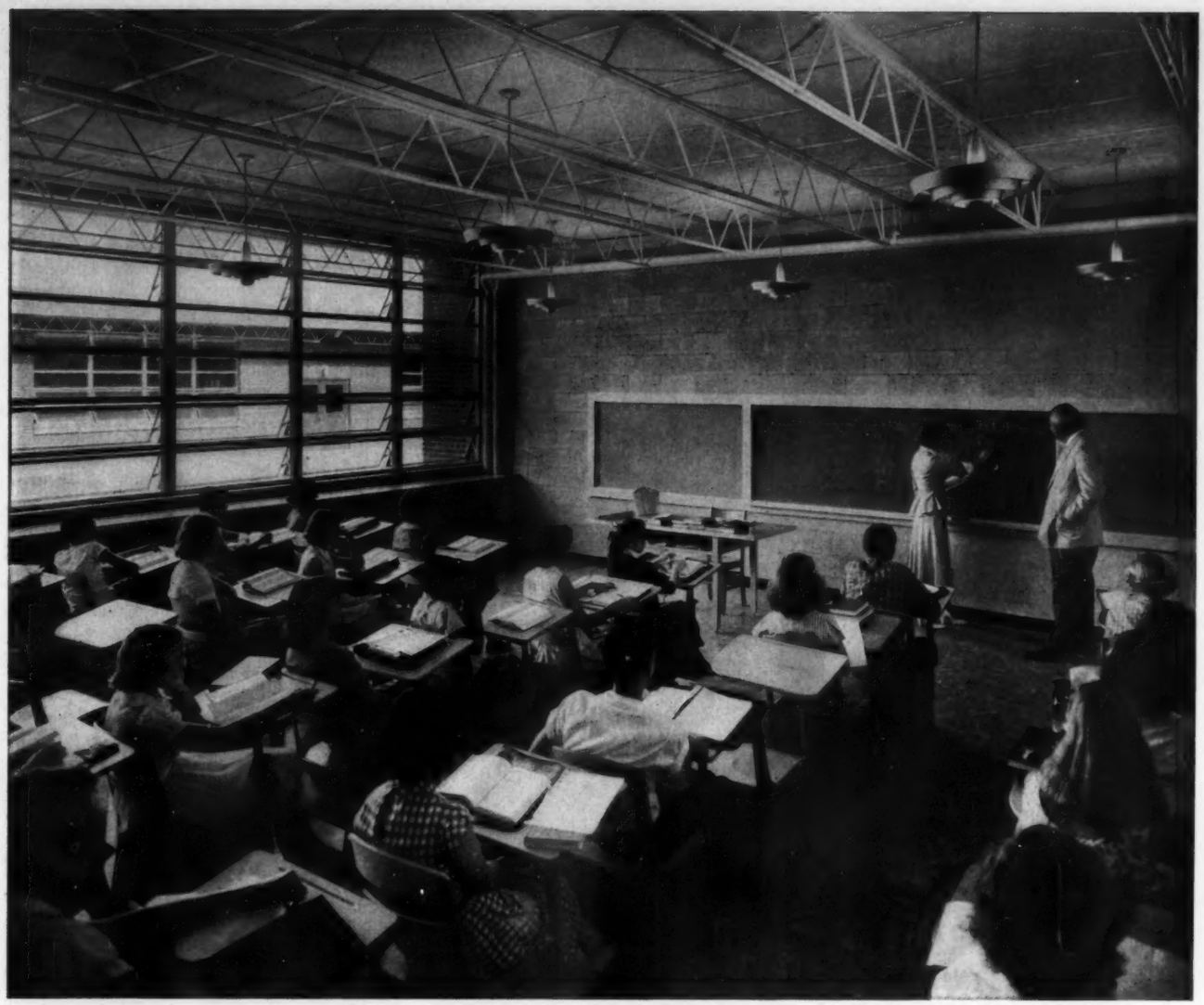
The proposed loans would bear a "small premium" cost to be set by the Department of Health, Education and Welfare. To preserve "the continuing responsibility of the mortgagor and the lending institution," insurance would be limited to less than the face amount of the loan and the mortgage loan would have to be for less than the full value of the property. "The authorizing legislation," the message added, "should of course include any needed safeguards against the encouragement of sub-standard or unsound projects."

The President's message acknowledged the contribution to the "national drive for better health" of the 1954 amendments to the Hospital Survey and Construction Act — the amendments which provided assistance in construction of facilities for the chronically ill, nursing and convalescent homes, diagnostic and treatment centers and rehabilitation facilities. "These achievements," said the message, "represent a major gain for the immediate and future welfare of countless Americans — in the health of both mind and body. Recent advances do not, however represent our full capacity to wage war on illness and disability throughout the land."

Pollution Problems Cited

The President's message also urged stimulation of research on air and water pollution problems, noting that industrial growth and urban development have caused a situation in which the air over some communities is approaching "the limit of its ability to absorb air pollutants with safety to health." Increased demands for water, and the expanding use of chemicals by industry,

(*Continued on page 294*)



BLUE RIDGE HIGH SCHOOL, GREENVILLE COUNTY, S. C.

The ceiling that does THREE big jobs at one low price*

1. **It's a permanent, dimensionally stable form board for gypsum roof decks.**
2. **It's a fire-safe acoustical ceiling . . . reduces noise up to 75%.**
3. **It's a highly efficient roof insulation.**

Fiberglas* Acoustical Form Board actually performs all of these functions at a one-function price. It's a wonderful solution for the architect who is bucking a budget . . . ideal for schools, shopping centers, factories, recreational centers and many other structures. You owe it to yourself to know *everything* about this 3-in-1 product.

For complete technical data, see our catalog in Sweet's, or write: Owens-Corning Fiberglas Corporation, Dept. 68-C, Toledo 1, Ohio.

*Approximately 50¢ per sq. ft., based on an area of approximately 25,000 sq. ft.

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Sound Control Products • Roofing Insulations • Electrical Insulation • Duct Insulations • Low Temperature Insulations

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Protect Your Job

with LUCKE

Leakproof TUB HANGERS!

It's so easy to protect the reputation of an entire job when you permanently solve the problem of water seepage around tub rims. You can do this, so easily, with LUCKE Leakproof Tub Hangers. At the same time you solve many other problems. Take a look at the solutions listed below. All the new Statler Hotel bathtub installations are being safeguarded with LUCKE Leakproof Tub Hangers.



1. Seals rim permanently against water seepage.
2. Tub is easily levelled with Lucke Tub Hangers.
3. Equal support on all studs . . . eliminates strains . . . prevents sagging.
4. Perforations on upper part of hanger form base for wall material.
5. No unsightly cracks occur at tub rim to harbor dirt, grease and germs.

Excellent for masonry and all types of wall construction.



Write for complete information.

THE LUCKE LEAKPROOF TUB HANGER

WILLIAM B. LUCKE, INC.
WILMETTE, ILLINOIS

THE RECORD REPORTS

WASHINGTON
(*Continued from page 292*)

are increasing water supply problems. Mr. Eisenhower would give the U. S. Public Health Service greater authority to cope with these problems, in addition to funds for intensifying research.

PUBLIC WORKS STRESSED IN '55 ECONOMIC REPORT

"Fostering long-term economic growth" is the wise course for government in 1955, President Eisenhower declared in the letter of transmittal which accompanied the 1955 Economic Report of the President to the Congress. The Report, required annually under provisions of the Full Employment Act of 1946, said U. S. production could expand "with wise management" from the current annual level of about $360 billion to $500 billion within a decade.

The construction industry got full marks both for its part in helping the U. S. economy to its second-best year in 1954 by resisting the general economic contraction of the early months of the year and as a potential source of strength in future expansion.

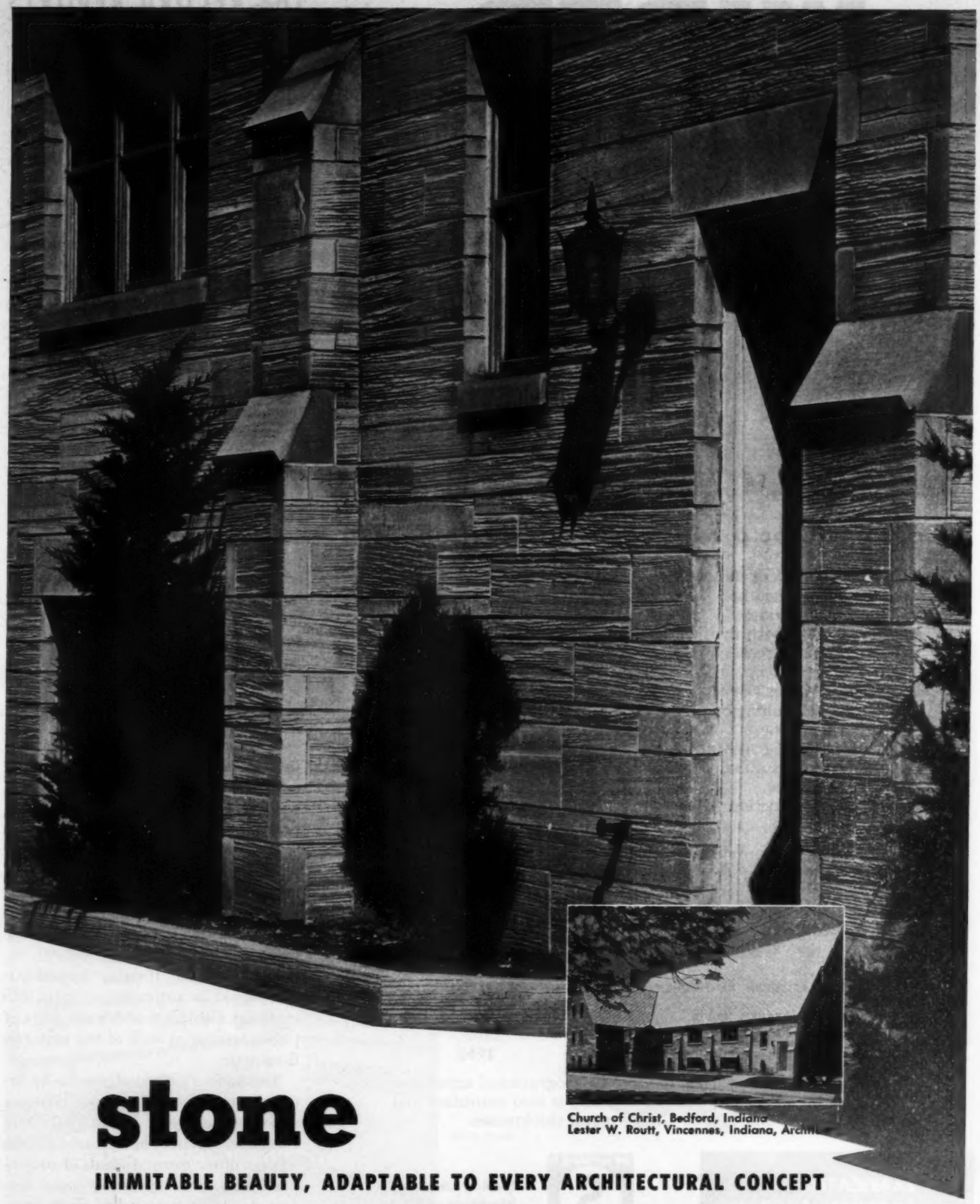
The report reflected the new emphasis the Administration is placing on the importance to the economy of public works — at state and local as well as Federal level — and their advance planning. It stressed the values of coördination of activities of all of the Federal agencies in this field with state and local agencies engaged in public construction.

"Expansion of Our Public Assets" was one of five major points in the Report's "Program for Sustained Economic Progress." For the first time the President asked the Congress to approve a revolving fund for advance planning loans. The third advance planning program now in effect has made a necessarily slow start with only $1.5 million appropriated last year, although $10 million was authorized. Describing the backlog of accumulated public works needs over 15 years of concentration on war and defense, the Report asserts: "The Federal government shares with state and local governments the responsibility for removing this obstacle to expansion."

Recommendations of special interest to construction:

1. "Early steps" should be taken to

(*Continued on page 296*)



Church of Christ, Bedford, Indiana
Lester W. Routt, Vincennes, Indiana, Archit...

stone

INIMITABLE BEAUTY, ADAPTABLE TO EVERY ARCHITECTURAL CONCEPT

It is one of the glories of STONE that it is equally adaptable to great building or small, to cathedral or skyscraper, to luxurious mansion or small home. For each it is specific. To each it brings a final touch of permanence and enduring beauty. And in every case, it is finally less expensive than materials which initially cost less. Build better with STONE.

The Building STONE Institute has a wealth of valuable material and information available for architect, builder or building owner.
Contact your nearest member, or write the Building STONE Institute.

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WIDER
Airtherm ROOF DECK



Airtherm Roof Deck provides a strong and economical roof for this well-lighted gymnasium

designed for a wide range of applications

Airtherm Steel Deck Sheets are furnished in 30" widths (the widest in the industry) with five ribs spaced on 6" centers. These ribs, 1⅝" deep, have a bearing surface of ⅝" and a top opening of only ¾" wide. These wider, self-aligning sheets mean fewer longitudinal laps with resultant savings in construction time and costs.



In this church the attractive appearance of painted Airtherm Roof Deck adds functional beauty to the clean design

Airtherm Decking provides a strong, safe and durable steel roof in flat, pitched or arched construction. It has been proved in installations as side walls, partitions, canopies, and as a sub-base for concrete or aggregate flooring. This versatility, plus its attractive appearance, has led to many unique applications in a wide range of structures.

18-GAUGE AIRTHERM ROOF DECK	PROPERTIES
Section Modulus (in.) 3	.220
Moment of Inertia (in.) 4	.263
Resisting Moment (in lbs.)	3960

To care for all contingencies relative to geographical areas and various purlin spacing, Airtherm Decking is also manufactured in No. 22 Gauge and No. 20 Gauge metal thicknesses.

FABRICATED PRODUCTS DIVISION
Airtherm
MANUFACTURING COMPANY
747 South Spring Avenue
St. Louis 10, Missouri

see our catalog in S or write for copy

For more complete information consult our catalog in Sweet's 2dAi, or write...

Member: Metal Roof Deck Technical Institute

THE RECORD REPORTS

WASHINGTON

(*Continued from page 294*)

help relieve the classroom shortage in the nation's schools.

2. An office of Coördinator of Public Works Planning should be set up within the Executive Office of the President.

3. Appropriations for planning advances to states and municipalities should be enlarged and a revolving fund for the purpose should be established.

4. Studies should be made by the various states of the problems of metropolitan areas, so that area-wide transit systems, sanitation systems, water supplies or educational facilities may be provided with maximum returns from public funds expended.

5. The "National System of Interstate Highways" should be modernized over a ten-year period.

6. Insurance authorization of the Federal Housing Administration should be increased.

7. The President should be given greater latitude in the exercise of his power to vary, in the light of economic conditions, the terms on which home mortgages are underwritten by the Federal government.

8. National banks should be authorized to make conventional real estate mortgage loans with maturities up to 20 years, and to extend the maximum duration of construction loans.

9. States should take steps to expedite urban renewal plans so as to obtain maximum Federal assistance.

10. States should consider, where necessary, enacting legislation to permit the writing of "open-end" mortgages.

11. The Public Housing Administration should be authorized to enter into contracts for 35,000 additional units of public housing in each of the next two fiscal years.

The value of early studies made by the coördinator of public works planning appointed last year in the Council of Economic Advisers has "confirmed the wisdom of the many students of government who have repeatedly urged systematic attention to public works planning" and led to the recommendation for establishing the separate office, the President indicated.

In two separate studies the coördinator, Maj.-Gen. John Bragdon, found that Federal plans for "sound projects" are available in "reasonable abundance"

(*Continued on page 298*)

St. Charles selected again...

in major hospital casework installation



New St. Mary's Hospital addition, nearing completion in Grand Rapids, Michigan, offers still another example of St. Charles success in the field of hospital casework fabrication and installation. Once again, the advantages to be had from St. Charles long years of experience, at work in the nation's newest, most modern casework construction plant, have gained expression in a major hospital.

The reasons for St. Charles continuing preferment are readily apparent. St. Charles methods of custom construction and color styling offer free scope to the imaginative designer. Their broad range of special units, plus the know-how gained from thousands of installations, offers a welcome assist in hospital casework planning. And St. Charles complete design and layout service, freely available in whatever degree it may be desired, puts dependable personnel to work on your job, at once.

Your request for more information will be handled promptly.



Operating Room



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A newly published, 40-page catalog, "St. Charles Hospital Casework," will be mailed to you when requested on your letterhead.

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casework • sinks and counters • special purpose units

ST. CHARLES MANUFACTURING COMPANY, DEPT. AR, ST. CHARLES, ILLINOIS



Overhead Lights . . .

Servisafe

BRACKET UNITS

FOR WALL AND WOOD POLE MOUNTINGS

. . . serviced from the ground

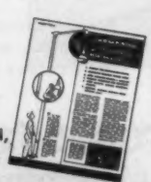
NOW . . . luminaires mounted on walls and wood poles can be serviced in minimum time with complete safety. "Servisafe" Units feature a disconnecting and lowering mechanism that permits workmen to lower the lights for servicing and to reposition them quickly and easily. All operations are accomplished from the ground. All climbing and electrical hazards are eliminated.

Supplied in ready-to-install packages*, "Servisafe" Bracket Units have an unlimited range of application. They permit all-weather accessibility to luminaires . . . mounting heights up to 60 feet above ground level . . . fast, efficient, low cost maintenance.

Designed for new installations and the rapid conversion of existing facilities, "Servisafe" Bracket Units can be used with all standard pendant and flood type lighting fixtures.

** Luminaires are not included in Bracket Unit packages.*





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THE THOMPSON ELECTRIC CO.

1199 POWER AVENUE • CLEVELAND 14, OHIO

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WASHINGTON

(*Continued from page 296*)

for an accelerated public works program and that public works planning by states and localities is "extensive," although it was also noted that there is only a small backlog of plans "at the stage of drawings and designs."

Many smaller communities, the President noted, have projects within their master development plans for which money is not immediately available for preliminary engineering surveys and preliminary designs; assistance to such communities, he feels, might enable them to develop plans for public works ready for initiation without months of delay if the need should arise. He added: "The need for building a reservoir of 'ready-to-go' projects has been recognized in three separate programs of planning advances, established by the Congress within the past decade. This experience indicates that the need for preparedness, being itself continuous, is not well met by programs of limited duration."

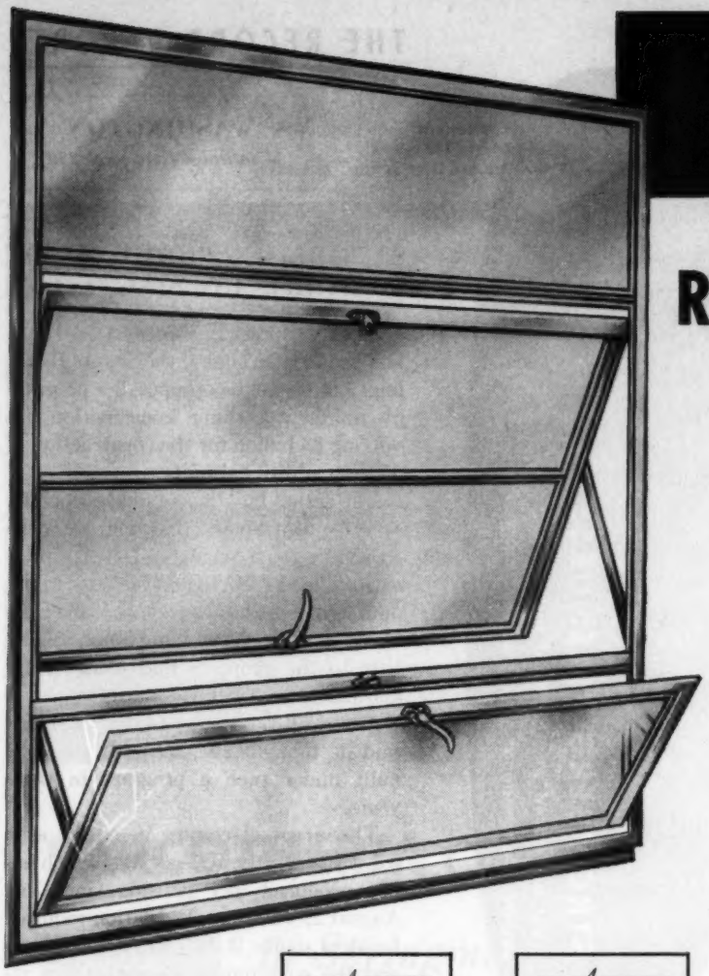
OVER 300 AGENCIES QUERY HHFA ON PLANNING FUNDS

Well over 300 local public agencies have inquired about the third advance planning program administered by the Housing and Home Finance Agency. Most of the agencies already had begun preparation of the required qualification statements. The number of queries indicated keen interest in this program, which got off to a slow start late last year when Congress appropriated only $1.5 million of the $10 million it had authorized.

Public works that can be planned with the Federal funds embrace all public facilities except housing. As the revived scheme gets underway, HHFA is giving preference to those proposed projects which would develop maximum construction at minimum planning costs and which would serve "urgent needs" of the community. Waterworks and sanitation facilities are expected to top the list.

HHFA indicated there would be further requests to Congress for additional funds, and perhaps more authorization. The President's fiscal 1956 budget estimated outlays for this program at $3,245,000.

(*Continued on page 300*)



The versatility of its type ....superior in design !

REYNOLDS 600 SERIES

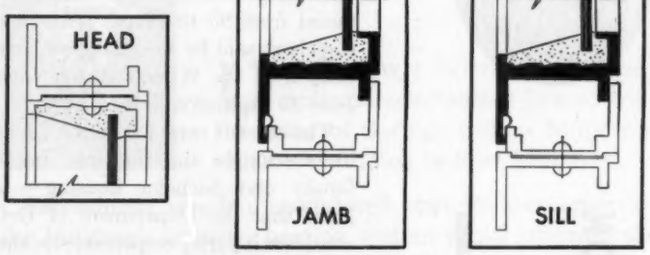
Intermediate Projected

ALUMINUM WINDOWS

Ideal for institutional, industrial, commercial and apartment use, the Intermediate Projected type combines structural strength with functional operation and modern appearance.

Reynolds Intermediate Projected Window is distinguished in both design and construction. Flush-inside-and-out frames electrically flash-welded. Adjustable friction shoe and nylon slide. Available with or without complete perimeter neoprene weatherstripping. Write for catalog.

Reynolds Metals Company, Window Division, 2015 South 9th Street, Louisville 1, Kentucky.





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Architects: Faulkner, Kingsbury and Stenhouse, Washington, D. C. ***Gen'l Contractors:*** Charles H. Tompkins Co., Washington, D. C. ***Window Erection Contractors:*** F. H. Sparks Co. of MD., Inc., Baltimore. ***Architectural Aluminum Fabricators:*** A. F. Jorss Iron Works, Arlington, Va.

SEE "MISTER PEEPERS," starring Wally Cox, Sundays, NBC-TV Network.

REYNOLDS ALUMINUM

BUILDING PRODUCTS

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HOSPITAL TIME AND SIGNAL EQUIPMENT
Audio-Visual NURSES CALL

STROMBERG TELENURSE
most advanced audio-visual nurses' call system. Auto-manual and manual control.

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For complete information about the finest hospital signal and time systems, write

STROMBERG TIME CORPORATION
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THE RECORD REPORTS

WASHINGTON

(*Continued from page 298*)

$3 BILLION PROGRAM OF MILITARY HOUSING ASKED

Senator Homer E. Capehart (R-Ind.), last year's chairman of the Senate Banking Committee, has proposed a program of military housing construction involving $3 billion for the construction of 300,000 additional units.

The actual building would be done by private contractors, bidding competitively on Department of Defense projects. The Federal government would obtain and guarantee private loans from banks and mortgage companies, taking title to the property and using rental allowances to retire the mortgages over a period of 32 years. Senator Capehart said he thought 300,000 units could be built under such a program in three years.

The proposal comes, in effect, as a substitute for the Wherry Act, which has not produced any housing since last August 2, when new legislation required builders under it to certify their costs and the government guarantee was reduced from 95 to 90 per cent. Senator Capehart said he would oppose any extension of the Wherry Act beyond its June 30 expiration date.

The current need for military housing units — single and multiple dwellings, family and bachelor housing — is so great that the Department of Defense considers it partly responsible for the low re-enlistment rate. Military housing experts at the Pentagon say that much of the limited supply of housing now available to servicemen in the U. S. is inferior and that it is the source of growing complaints from personnel.

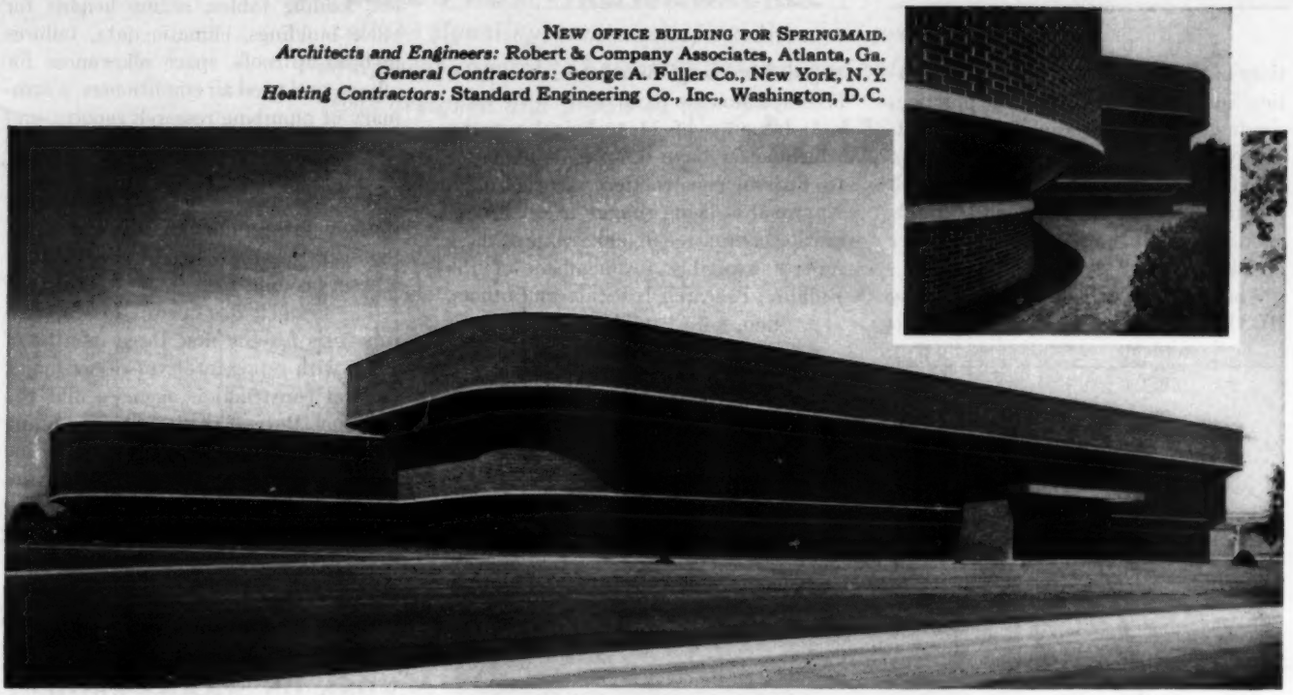
Senator Capehart's proposal is another example of an effort to finance a huge construction program with private money outside the Federal budget.

SEEK LONGER LIFE FOR CONSTRUCTION COUNCIL

Funds will be sought to extend the life of the Federal Construction Council, an organization made up of representatives of all Federal agencies concerned with construction, through September of this year. The Council, set up in accordance with one of the recommenda-

(*Continued on page 302*)

NEW OFFICE BUILDING FOR SPRINGMAID.
Architects and Engineers: Robert & Company Associates, Atlanta, Ga.
General Contractors: George A. Fuller Co., New York, N.Y.
Heating Contractors: Standard Engineering Co., Inc., Washington, D.C.



SARCOTHERM *Controls Radiant Heating System in Springmaid's Unique Home Office*

UPSIDE-DOWN WINDOWS, "floating" ceilings, and radiant heated walls tell the story of Springs Cotton Mills' remarkable new building in Fort Mill, S. C.

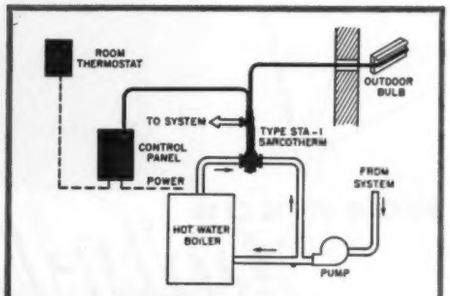
Sarcotherm weather modulated controls were specified for the building's unusual heating system which operates through radiant panels installed in the walls. The system is divided into seven zones, each of which is regulated by a Sarcotherm Indoor-Outdoor control. Thus each zone is assured comfort regardless of location and outside temperature conditions.

Sarcotherm provides a simple, low-cost way of achieving accurate, sensitive control of radiant and hot water heating systems. Coupled to these distinct advantages is Sarcotherm's extensive engineering service which can help you design and install the most efficient and trouble-free system possible.

A Sarcotherm heating engineer will be happy to talk over your next project with you. For complete details on Sarcotherm weather modulated controls contact your nearest Sarcotherm representative, or write direct to Sarcotherm Controls, Inc., Empire State Building, N. Y. 1, N. Y.

SARCOTHERM CONTROLS, Inc.

An Affiliate of SARCO COMPANY, INC.



Typical of the Springmaid installation is this hookup. Proportioning type mixing valve continuously modulates water temperatures.

TAKE ADVANTAGE OF SARCOTHERM'S UNUSUAL ENGINEERING SERVICE

In a Class By Itself—Sarcotherm's engineering service begins with the inception of the job, *carries through* every step of the way.

Complete Installation Drawings and Wiring Diagrams—not just general drawings but complete, tailor-made Sarcotherm drawings and diagrams for each individual job.

On-the-Job Help—your contractor gets Sarcotherm's full cooperation and technical assistance backed by many years of specialized experience.

tions of the 1952–53 studies on conservation in government building practices conducted by the Building Research Advisory Board for the Defense Production Administration, completed the first 18 months of its existence with funds enough to see it through the first quarter of this year.

The Council, which is operated by BRAB under a contract with the National Bureau of Standards, has these accomplishments to show:

1. Issuance of 11 technical reports, which so far have been made available to Federal construction agencies only. Approval is being sought from the operating committee to make some of these reports available to members of the Building Research Institute and others.

2. Nine more "tasks" under way or authorized. These deal with cooling towers, loading tables, ceiling heights for office buildings, climatic data, failures in built-up roofs, space allowances for offices, packaged air conditioners, a summary of plumbing research reports, and windows (including accessories as well as the windows themselves).

3. Fifty-three meetings — including those of task groups, industry advisers, the operating committee and the BRAB advisory committee.

The Council was operated on a trial-run basis for the first three months of 1953, with representatives of six major Federal construction agencies and the National Bureau of Standards guiding it as a coördinating committee. In June 1953, on the basis of the trial run, BRAB recommended formation of the present operating committee. Task groups have been named from technical personnel of the participating agencies for specific assignments as required.

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Roly-Door
steel sectional doors
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CLEAN, MODERN FUNCTIONAL SIMPLICITY that blends with all types of architecture is the hallmark of Morrison Roly-Doors.

SIMPLIFIED DESIGN ensures safe, easy, trouble-free installation and operation . . . manual, electrical and by remote control.

BONDERIZED, ALL-STEEL, WELDED CONSTRUCTION provides lasting good looks and a durability that defies the weather and years of hard use.

ECONOMICAL INSTALLED COST made possible by sound engineering and modern, precise, mass production . . . Roly-Doors cost no more than ordinary wood or metal doors for the same purpose.

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NATIONWIDE SALES AND SERVICE . . prompt delivery and expert installation service are offered by Roly-Door Distributors and Dealer-Installers located in the principal cities of the U. S. and Canada. They are listed in classified telephone directories.

Complete Roly-Door Specifications are available in Sweet's Architectural File or from:

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Also manufacturers of MOR-SUN WARM AIR FURNACES and MORRISON SERVICE BODIES
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WORK ON SEAWAY PROJECT BEGUN BY ARMY ENGINEERS

The St. Lawrence Seaway Development Corporation is keeping close watch on design activities carried out by the Army Corps of Engineers, and has cleared its cost accounting procedures according to "desired" formula. The Corporation audits all expenditures and examines all financial transactions.

The Army Corps of Engineers was selected as designing and contracting agent for the huge construction project because of its familiarity with the background of this river development, its long experience in the specialized field of design and construction of locks and canals, and because it already had a going organization prepared to take on the job. This meant no loss of time for personnel buildup.

The Corporation is reviewing — and in some cases modifying — the step-by-step planning operations by the Corps. This includes design criteria, general layout plans, and contract plans and specifications. So closely is the SLSDC keeping tabs on the planning work that advance notices to bidders, advertisements for bids, and contract awards are given prior clearance. The Corps does not negotiate for acquisition of lands without prior screening and approval by the Corporation.

Costs of the Seaway activities are reimbursed to the Corps from proceeds of revenue bonds issued by the Corporation.

(*Continued on page 304*)

. . . and at

ST. LUKE'S HOSPITAL, MILWAUKEE

all the signaling, communication, time and protective equipment so vital to hospital efficiency and safety was designed and produced by

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Emergency and routine calls for doctors pour into the switchboards of St. Luke's Hospital each day. Like hundreds of others, St. Luke's depends on its Auth Staff Register System for finger-tip control of doctors' whereabouts, so they can be located at once.
For literature, write to *Auth Electric Company, Inc. Long Island City 1, New York.*

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SIGNAL TIME and COMMUNICATION SYSTEMS

WASHINGTON (*Cont. from p. 302*)

Design work is being accomplished primarily at the Buffalo, N. Y., office of the ACE; but some support work, particularly on lock gate design, has been done at Nashville, Tenn.

The planning is screened at the ACE offices in Chicago and Washington and the Corporation receives copies of all design reports and proposed plans and specifications as developed at Buffalo. This enables it to act with maximum dispatch when the full planning process has been accomplished by the Corps.

Design is being pushed on various locks in the United States portion of the program. These are considered the most important elements. All Seaway construction by the United States will be by contract after competitive bidding. Contracts are being awarded to the lowest responsible bidder.

A high degree of mechanization on the canal and lock construction may well result, according to Raymond F. Stellar, Corporation engineer. Generally this permits the contractor to hold his costs down. Lower costs mean more rapid self-liquidation or lower tolls for the same payout period, he pointed out.

Although the work is being pushed forward rapidly, there will be no rash decisions made, Mr. Stellar stressed. "To overcome the present bind of time on design," he said, "top specialists in the various fields are being pulled in to advise and assist, and to speed up the design process. But this is no push-button affair. While many locks have been built by the Federal government heretofore, each new one is tailor-made to fit the particular local conditions and these new locks and their attendant work are no exceptions."

The U. S. facilities should be ready on a 27-ft channel depth basis at the start of the 1959 shipping season — the 14-ft traffic is expected to move as early as September 1958.

ADDENDA

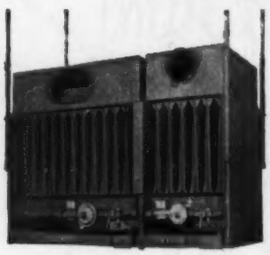
THE ATOMIC ENERGY COMMISSION has launched a Power Demonstration Reactor Program "designed to open the way for American industry to develop, fabricate, construct and operate experimental nuclear power reactors." Applicants who are willing to assume the risk of construction, ownership and operation of reactors designed to demonstrate the practical value of such facilities for industrial or commercial purposes are invited to submit proposals to AEC by April 1. One or several — or none — of the proposals may be accepted.

CONSTRUCTION ACTIVITY in 1954 established a new record of $37.2 billion, with expenditures exceeding the 1953 peak in each of the 12 months, according to preliminary estimates announced jointly by the U. S. Departments of Commerce and Labor. The total was five per cent over the 1953 figure and made 1954 the eighth consecutive year in which construction activity reached a new high. Private construction, at $25.7 billion, was up eight per cent over 1953, an all-time high; public spending, at $11.5 billion, was about the same as in 1953.

NONFARM HOUSING STARTS in 1954 totaled 1,215,500 units, a total second only to the 1950 figure of 1,396,000 and 10 per cent above the 1,103,800 figure for 1953, Secretary of Labor James P.

(*Continued on page 308*)

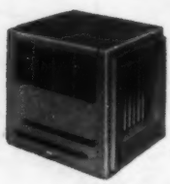
Specify the *ideal* heating system for every building with these 2 NEW Reznor duct furnaces



SERIES DS — 150,000 to several million BTU

An unlimited number of sizes ranging in steps of 50,000 BTU from 150,000 to several million BTU — obtained by combinations of four basic sections.

Revolutionary sectional assembly, in addition to simplifying installation, allows operation of less than the total installed capacity during periods of less than peak load. Each section complete with combustion controls and built-in draft diverter. Sections may be installed in a single or double bank.



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Attractively-styled so they may be installed out in the open. Complete with combustion controls and built-in draft diverter. Burner access and controls completely enclosed on one side. Four sizes: 50, 75, 100 and 125 thousand BTU.

Meet the *exact* heating requirements of every building you design by combining a Reznor duct furnace with equipment for air moving, cleaning, cooling and humidification selected for maximum efficiency at lowest cost. These new Reznor units (basically nothing more than compact, lightweight heat exchangers) will greatly increase the number of buildings in which you can give your clients exactly what they want and need.

The two new series include capacities to fit any system. The smaller series, designed primarily for small commercial buildings, will also solve a lot of tough residential heating problems. The larger series will handle the larger commercial buildings and your institutional and industrial jobs. Though differing in design and appearance, both series offer the same advantages of high efficiency, easy installation as an integral part of the duct system (suspended or base mounted) and complete flexibility for combination with other equipment.

Suggestions on how you can cash in on the opportunities presented by these two new duct furnaces, plus complete details on their construction and performance, are included in two new bulletins, B-55-D and B-55-DS. Use the coupon below to send for your free copies today.

REZNOR THE WORLD'S LARGEST-SELLING GAS UNIT HEATERS

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Here's an imaginative and practical use of clay tile by William Pahlmann Associates, Inc. What could be more congenial, more lastingly colorful, than this wall and floor? They're both Mosaic Clay Tile! And note the decorative tile fireplace treatment.

For helpful literature on the many types of Mosaic Clay Tile, write Dept. 30-26, The Mosaic Tile Company, Zanesville, Ohio. "The Tile Handbook," published by the Tile Council of America, will help you specify. And remember—you and your clients are always welcome at our showrooms and at those of your Tile Contractors.

Designers: William Pahlmann Associates, Inc.
Tile Contractor: Tilecraft, New York
Photo: Lionel Freedman

Specifications: Floor and Bench: Ceramic Pattern 1738, Color 28-L. Wainscot: Special Ceramic Pattern of 1-9/16" x 3¼" tile: Colors, White, 28-L and Chocolate. Fireplace: Special Thistle Pattern, 6" x 6" Decorated Tile.

For Free Estimates on (MOSAIC) Tile, see your phone book for the name of Your Tile Contractor (Ceramic)

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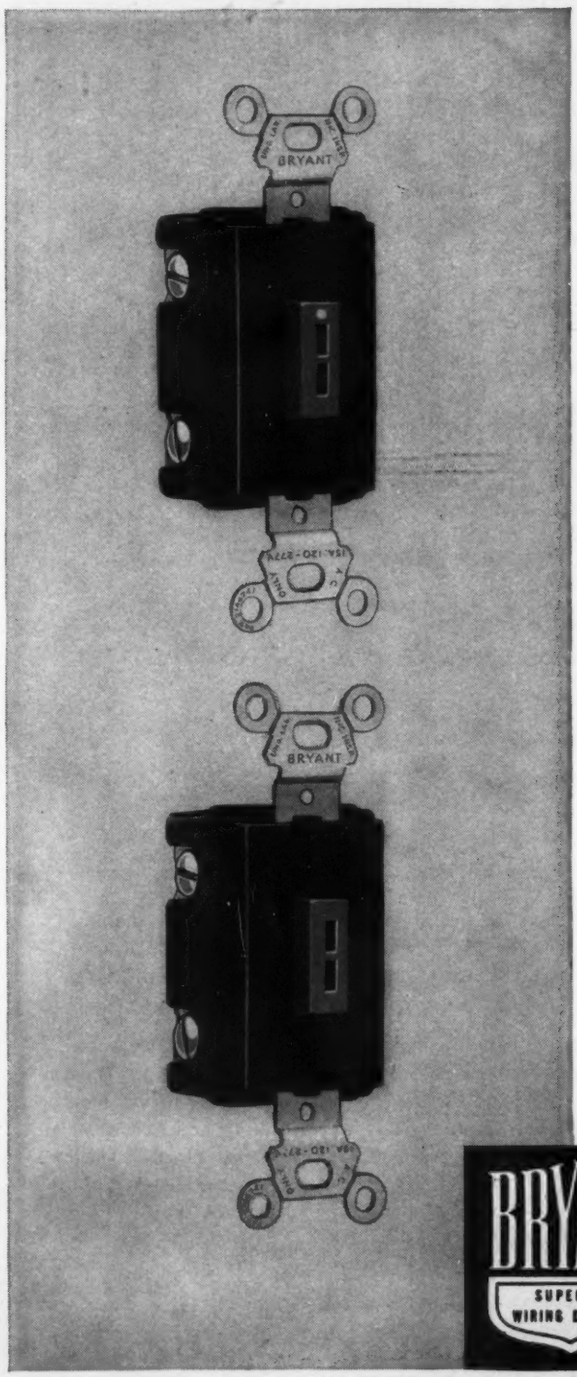
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LOCK-TYPE SWITCHES

FOR 4801 (15 AMP) AND 4901 (20 AMP) A.C. SWITCH LINES



Latest additions to the popular new 4801 and 4901 switch lines are these top-quality lock-type switches rated at 15 Amperes and 20 Amperes at 277 volts respectively. Available in single and double pole, three and four way.

Rugged Construction, Heavy-Duty Service

Built to last indefinitely, these new lock-type switches will stand up under the toughest operating conditions in commercial and industrial use. They can be used to full rated capacity on fluorescent and tungsten filament lamp loads and up to 80% of switch rating for motor control, which means fewer switches, lower job costs.

Quality Features

The new Bryant Lock-Type switches feature all of the outstanding quality characteristics of the 4801 and 4901 lines, including easy back wiring, silver contacts and quiet operation.

Listed by Underwriters' Laboratories, Inc. Meet all specifications.

THE BRYANT ELECTRIC COMPANY

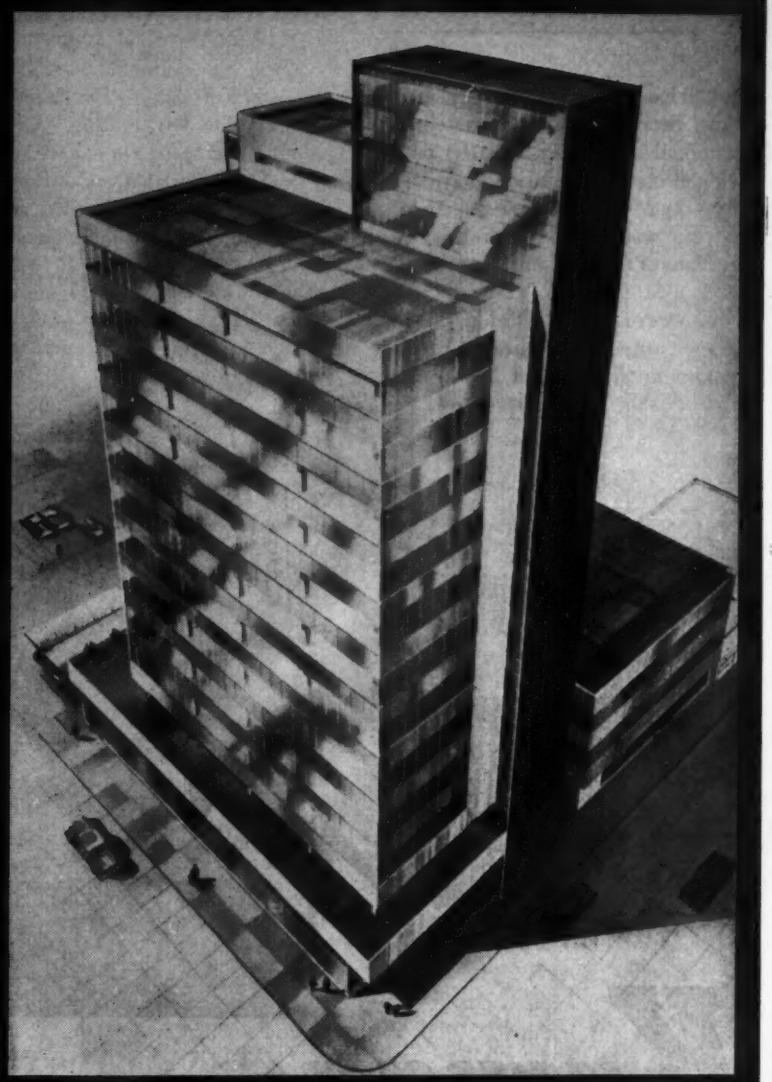
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SUPERIOR WIRING DEVICES

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FIRST TIME! True curtain wall of colorful porcelain in multi-story office building



First Security Bank Building
Salt Lake City, Utah

Everything you see is *Seaporcel* porcelain, excepting the windows! Yes, for permanent material, distinctive color combinations, ease of erection, lower labor costs, savings in structural steel and foundation costs and negligible maintenance... *Seaporcel Porcelain* is your answer to modern designing!

The main building consists of 44,000 sq. ft. of ribbed porcelain framing and wall surfaces in textured warm rust and tasteful off-white as the color theme outlining the structure. This includes the eyebrow and sunshade on the southerly elevation. The spandrels (12,500 sq. ft.) comprise 510 individual smooth gray panels—4'x4'—and are recessed with 8"x8" squares in "waffle" effect. The 4500 sq. ft. of ribbed spandrels facing the Annex Building are in textured off-white.

Another interesting treatment designed by the architects is the use of almost 3300 sq. ft. of *Seaporcel* porcelain exterior soffit for a continuous marquee around the main portion of the building and under the promenade which occurs at the second story level.

For Some Job... Somewhere...

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Write for brochure # 23

General Contractor & Builder: Utah Construction Co., Salt Lake City
Associate Architects: Bank Building Corp., St. Louis; W. Sarmiento, St. Louis; Harry S. Moyer, San Francisco; Slack W. Winburn, Salt Lake City.

CONSTRUCTION AND ERECTION DETAIL

Ribbed Seaporcel porcelain panels are bolted into a steel grid framework forming a completely assembled unit 4 ft. x 12 ft., placed in position and fastened to main structural steel by angle clips.

A wire mesh, fastened to the insides of the grids, is sprayed with lightweight cementitious plaster in thickness sufficient to insure proper insulation and fireproofing factors. Because of the simplicity of the grid installation and the fact that the coldest weather will not affect the progress of the erection of the Seaporcel material, a great deal of time is saved on overall construction.

Construction details are no problem as *Seaporcel* and *Seaporclad* can be adapted to meet all conditions for any type of construction. Our product will fit into any type of window construction whether wood, steel or aluminum.

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A. F. OF L. METAL FABRICATING & ENAMELING PLANT

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COMPLETE ENGINEERING & ERECTION DEPARTMENTS

WASHINGTON (*Cont. from p. 304*)

Mitchell has announced. In releasing the figures, Secretary Mitchell noted that exceptional strength in the latter part of 1954 reflected substantial increases in the supply of funds for mortgage investment, as well as the liberalized loan provisions of the Housing Act of 1954.

ROGER W. FULLING of Wilmington, Del., has been appointed Director of Construction in the office of the Assistant Secretary of Defense for Properties and Installations. Mr. Fulling, who has been atomic engineering manager in the engineering department of duPont in Wilmington, succeeds Admiral Joseph F. Jelley Jr. As director of construction he will continue the work of establishing standards in the field of military construction operations and of analysis and review of Army, Navy and Air Force construction programs.

CONSTRUCTION REVIEW, a new monthly publication combining *Construction*, formerly published by the Department of Labor, and *Building Materials*, a Department of Commerce publication, has published its first issue. It includes detailed reviews of 1954 construction and departments on construction put in place, new housing, building permits, contract awards, costs, materials and employment. The magazine is available at $3 a year from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

HOUSING NOTES: Louis J. Fellenz, 39, of Fond du Lac, Wis., was named director of multifamily housing for the Federal Housing Administration. He succeeds Clyde Powell, who was dismissed a year ago when the investigation of irregularities in FHA operations began. . . . FHA issued detailed directions to field offices covering insurance of advances on rental housing, specifying methods of architect fee payments as part of its instructions on interim advances. There is to be no "holdback" of architects' fees on Section 207 projects, the FHA instructions made clear. Instructions also covered the question — vital in prevention of mortgaging out abuses — of reducing the maximum insurable mortgage upon completion of Section 207 housing when the certified actual cost of the property or project proves to be less than the FHA estimate of value. Before final advances are made, the maximum insurable mortgage is redetermined in connection with the mortgagor's cost certification. . . . Home-financing needs of the nation will call for investment of $16 billion in new money this year, according to preliminary estimates by the Home Loan Bank Board, which believes this would be a record figure. Loan funds will be available to meet the demand, the Board said. . . . Six leaders in the field of residential appraisal have agreed to serve on a special industry committee to review FHA's approach to the valuation of cooperative housing. . . . The United States Tax Court has ruled against the government in its suit to collect some $3 million in back taxes from eleven stockholders in 27 Gross-Morton corporations. The court ruled that the stockholders had correctly treated their "windfall" profits as capital gains; the government contended they should have been reported as regular income. The decision appeared to be a setback for government hopes of collecting millions of dollars in back taxes in similar cases.

(*More news on page 310*)



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SECURE barrier against
hydrostatic head
call for

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Here's how the Karnak Membrane System is superior to ordinary methods of waterproofing, especially where there is danger of water seepage.



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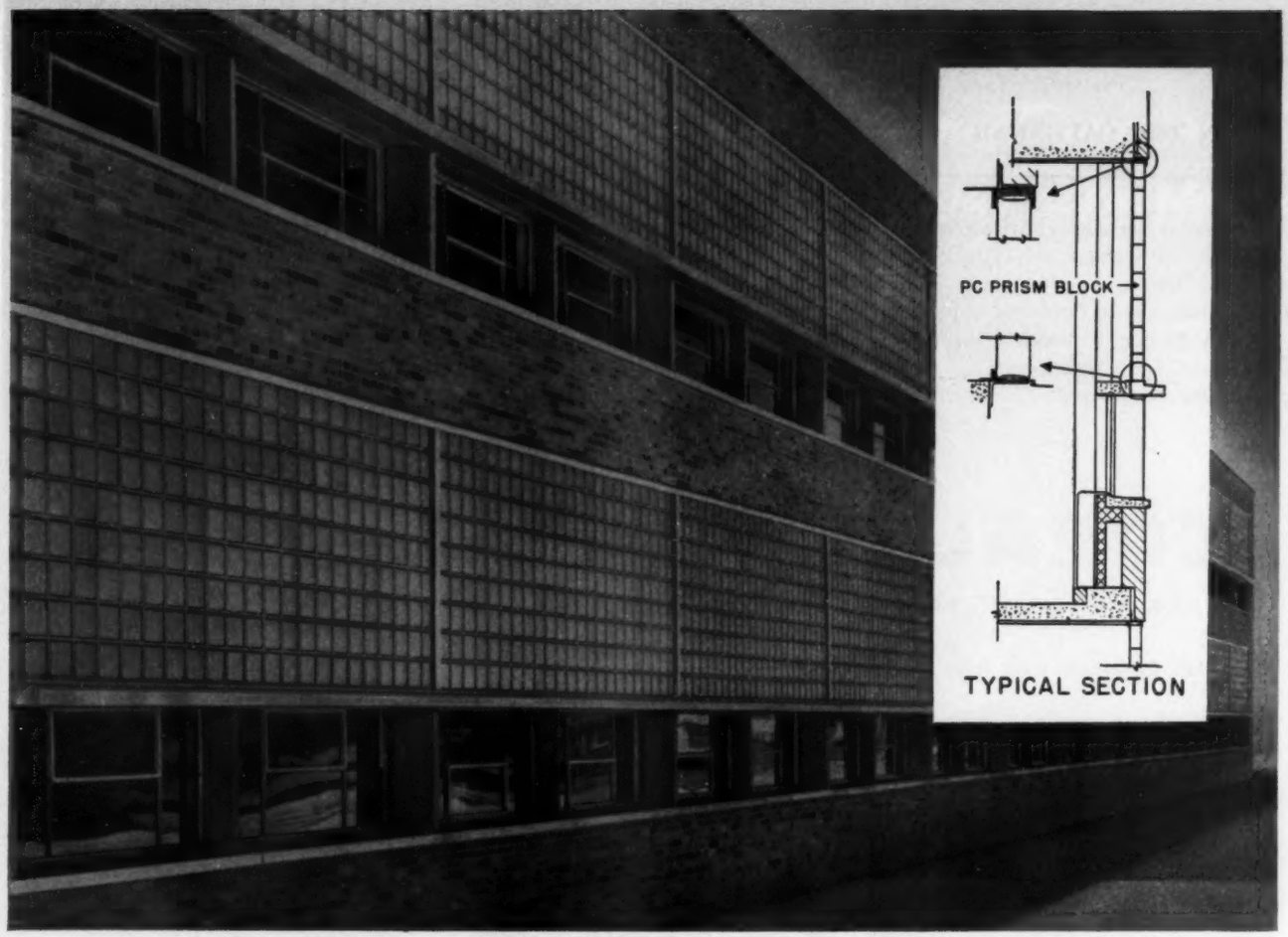
Karnak Fabric is non-sticking, unrolls easily to the very end . . . works faster with no waste. It is packed in sturdy corrugated cartons for protected shipping and storage. Available through waterproofing contractors, or distributors or write us for information. ***Made by Lewis Asphalt Engineering Corp., 30 Church St., New York 7, N. Y.***

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Architect: Giffels & Vallet, Inc., L. Rossetti, Associated Engineers and Architects, Detroit.

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The school building in the picture is an interesting example of imaginative design. Notice the neat flush panels of PC Glass Blocks. Then notice the deeply recessed vision strips that are self-shading for high sun angles. The total effect is striking!

In the last few years, the PC Glass Block line has been expanded until you can now choose a block for every conceivable application. You can think in terms of the new 12″ blocks, the new Skytrol Blocks for toplighting, or the new Suntrol Blocks for high brightness areas. The product is here. Why not think seriously about it when planning your next new building? See our catalog in Sweet's or write Pittsburgh Corning Corporation, Dept. C-25, One Gateway Center, Pittsburgh 22, Pa.

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THE RECORD REPORTS

(*Continued from page 308*)

ON THE CALENDAR

March

9–11 Annual convention, Michigan Society of Architects — Hotel Statler, Detroit

10–11 Pacific Coast Conference, Porcelain Enamel Institute — Biltmore Hotel, Los Angeles

12–16 Regional convention, American Association of School Administrators — Denver

12–19 Ninth Pan-American Congress — Caracas

14–17 The 36th annual convention, Associated General Contractors — New Orleans

15–17 Utilization of Aluminum Conference, sponsored by the American Institute of Electrical Engineers — Pittsburgh

22–23 Retail Stores and Shopping Centers, an architects' conference sponsored by the Kansas Chapter, American Institute of Architects, the Kansas City Chapter, A.I.A., and the University of Kansas — University of Kansas, Lawrence

28ff Ninth Western Metal Congress and Exposition, sponsored by American Society of Metals and 19 other technical societies; until April 1 — Los Angeles

28–30 The 12th Annual convention, Canadian National House Builders Association — Toronto

April

2–6 Regional convention, American Association of School Administrators — Cleveland

6–10 World Plastics Fair and Trade Exposition — Los Angeles

12–15 Annual convention and architectural exhibition, National Catholic Educational Association — Atlantic City, N. J.

18–19 Seventh annual National Engineering Conference, American Institute of Steel Construction — Hotel Muehlebach, Kansas City

18–21 Annual meeting, Building Officials Conference of America — Milwaukee

28–30 Regional Conference, Western Mountain District, American Institute of Architects — Camelback Inn, Phoenix, Ariz.

May

1–4 Annual Meeting, Chamber of Commerce of the United States — Washington, D. C.

5–7 Regional conference of the A.I.A. South Atlantic District — Fort Sumter Hotel, Charleston, S. C.

16–20 Annual meeting, National Fire Protection Association — Netherlands Plaza Hotel, Cincinnati

16–20 Material Handling Exposition; theme, "The Concept of Obsolescence" — Chicago

18–20 Midyear Division Conference, Porcelain Enamel Institute — Edgewater Beach Hotel, Chicago

22–26 The 48th Annual Meeting of the Air Pollution Control Association — Detroit

30ff Canadian International Trade Fair; until June 10 — Toronto

31ff Third Basic Materials Exposition and Conference, this year including design engineering; until June 3 — Philadelphia

(*Continued on page 312*)

CORALUX

WAS ℞ FOR "BUILT-IN" **SAFETY**

AND **COMFORT** IN THE

ROCKFORD MEMORIAL HOSPITAL



Architects, Hubbard & Highland, Perkins & Will
General Contractor: Security Building Company
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- **HEAVY EXTRUDED SECTIONS** — 1⅝" ventilator depth. Minimum thickness of all structural members 1/16".
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- **EASE OF OPERATION** — Perfect balance and gear ratio permits finger tip control.
- **STRIP PROOF HEAVY COMPOUND OPERATOR** concealed in sill, synchronized distribution of load, unparalleled load safety factor for aluminum awning windows.
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- **HARDWARE**—Solid white bronze attractively designed tilted crank for operating vents. Solid white bronze cam lock and latch for hopper vents.

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QUALITY APPROVED A-A 2

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Write for specifications and detail drawings. Our engineering staff is available for your special window needs. Write Dept. R-3

THE RECORD REPORTS

(*Continued from page 310*)

OFFICE NOTES

Offices Opened

• J. Herschel Fisher, A.I.A., and Donald E. Jarvis, A.I.A., have announced the formation of a new architectural firm to be known as Fisher and Jarvis. Offices are at 4519 N. Central Expressway, Dallas 5, Texas.

• Godwin & Bell, Landscape Architects and Site Planners, have opened new offices in the Odd Fellows Bldg., Raleigh, N. C. The partners are James B. Godwin and Richard C. Bell.

• Charles F. Jost Associates and Donald L. Freeman have announced the opening of offices at 1110 S. Brentwood Blvd., St. Louis 17, Mo.

• Fred Marburg, Architect, has announced the opening of his new office at 1549 Santa Paula Ave., San Jose, Calif.

• William B. McCormick, architect, recently opened new offices at 465 Post St., San Francisco 2, Calif.

• Robert B. Myers announced the opening of an office for the general practice of architecture. His address is P. O. Box 77, Sea Girt, N. J.

• Patch & Erickson is a new architectural firm recently formed by Roger Patch and Don Erickson. Offices are at 333 S. Minnetonka Ave., Wayzata, Minn.

• Ernest Sibley, A.I.A., and Ernest Sibley Jr., A.I.A., have announced the formation of a partnership with Richard L. Howland, A.I.A. The firm, to be known as Sibley, Sibley and Howland, is located at 7 S. Main St., West Hartford 7, Conn.

• Grover W. Taylor and Fred Fong Gee have announced their association in the firm Taylor-Gee Architects; offices are at 8175 Sierra Ave., Fontana, Calif.

• H. Ross Wiggs, F.R.I.B.A., F.R.A.I.C., has announced his association with Richard F. Lawton, M.R.A.I.C., and George G. Walker, M.R.A.I.C., in the firm Wiggs Lawton & Walker, Architects. The firm's offices are at 4350 Sherbrooke St., West, Westmount, Montreal 6, Que.

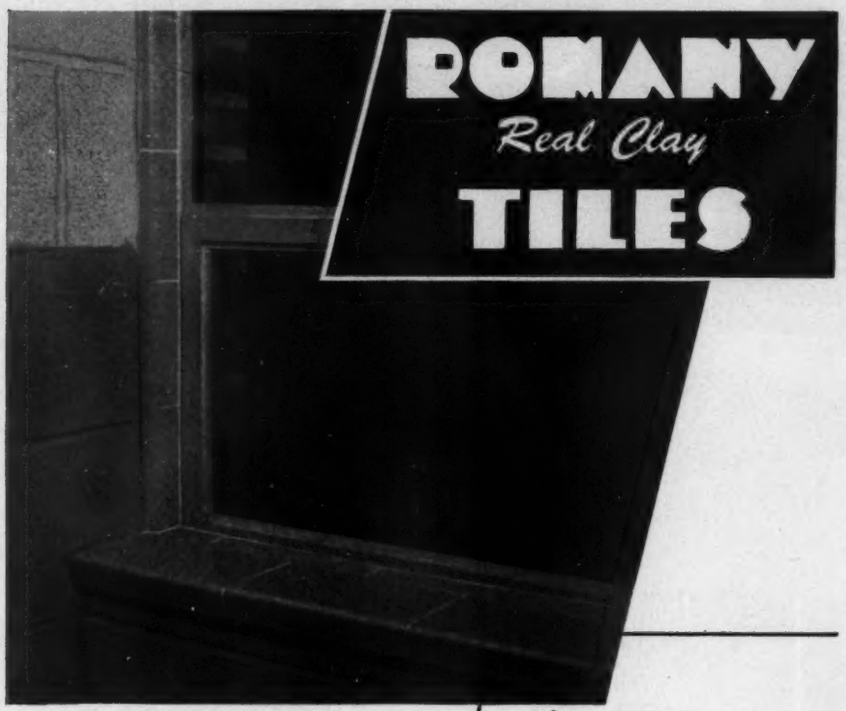
Firm Changes

• The Ballinger Co., architects and engineers, have announced the admission of Louis deMoll, architect, as a partner in the firm, which is located at 121 N. Broad St., Philadelphia 7, Pa. Other partners are Robert I. Ballinger, Robert I. Ballinger Jr., John D. deMoll, and Valentine B. Lee, Jr.

• The firm of William R. Burk, associated architects and engineers, has announced the formation of a new partnership: Burk, LeBreton and Lamantia, architects and engineers. Members of the New Orleans firm are William R. Burk, William R. Burk Jr., Thompson B. Burk, Denvrich C. LeBreton and James R. Lamantia, Jr.

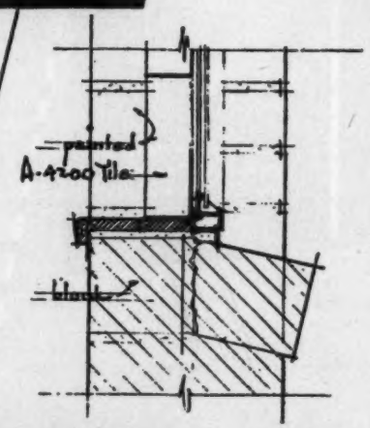
• Hubert L. Jones and Charles E. Wilkerson have been admitted as partners in the firm of J. Binford Walford, O. Pendelton Wright, Architects, of Richmond, Va.

(*Continued on page 314*)



TILE FOR MODERN WINDOW SILLS

This new flat smooth tile is economical and wear proof. It meets the growing demand for tiled window sills in residences, stores, etc. and has a special use in school rooms where it offers desirable space for exhibits plus welcome cleanliness. Priced to compete with most window sill materials. The A-4200 Cap illustrated, detailed into the window jamb, neatly and inexpensively covers transition between a metal window and wall material.



Every Architect should have our Sample Tile Chart No. 6. It's free.

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Public area in the First Federal Savings and Loan Co., Conover, N. C. Clemmer, Horton & Rudisell, architects, Robert Bush, consulting engineer.

A COMBINATION OF *Skylike* AND *Silver-dot* FOR THE ULTIMATE IN . . .



A view behind the tellers' counters with Silver-dot units over them and Skylike units over the general work area.



The general work area behind the tellers' counters. Skylike unit recessed in a Reynolds Corrugated and Perforated Aluminum ceiling.

LIGHTING INSTALLATIONS

Three essential factors of lighting installations are PERFORMANCE, ECONOMY, EFFECTIVENESS, and this combination of Skylike and Silver-dot units provides those essentials to their highest degree.

The even distribution of Skylike units provide glareless light over the public areas for "comfortable seeing" (top illustration). The work areas (shown on the left) have Silver-dot unit over the tellers' desks for the accent and supplementary lighting required, and Skylike units over the general work area for "easy-to-work-with" lighting.

This combination is a complete installation—that proves its effectiveness by its beauty, its economy by low initial cost, lowest current consumption and easy maintenance, and its performance by the lighting comfort it provides to workers and customers.

Here, indeed, is a typical example of Skylike installations in which functional light also becomes an integral part of architectural design.

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Radio City, N. Y.

SKYLIKE LIGHTING, INC.
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THE RECORD REPORTS

(*Continued from page 312*)

• Danin & Wheeler, Architects, of Staten Island, N. Y., have announced the opening of a branch office at 299 Madison Ave., New York 17, N. Y.

• A. J. Kruegel and S. W. Wilkins have announced the formation of a new firm to be known as Kruegel, Wilkins, Healy & Moore, Architects-Engineers; new partners are Watson A. Healy and Ernest O. Moore Jr. Offices will remain at 4 E. Clinton St., Joliet, Ill.

• Muhlenberg Bros., architectural firm of Wyomissing, Pa., has announced the appointment of William S. Kirkpatrick and John M. Schaller as associates.

• Pereira & Luckman have announced the appointment of Byron Vance Davis as director of the firm's Interior Design Department. Mr. Davis was formerly an associate professor in architecture and industrial design at the University of Southern California. Offices of the firm are located at 9220 Sunset Blvd., Los Angeles, Cal.

• The firm of Reddemann-Knudson Archts. — Jordan A. Miller (Associate) has been dissolved. Arthur O. Reddemann, A.I.A., and Mr. Miller will continue practice in offices at 13395 Watertown Plank Rd., Elm Grove, Wis. Kenneth I. C. Knudson, A.I.A., has established offices at Route #1, Dousman, Wis.

• Irving G. Smith, F.A.I.A., has announced the admission of George C. Kotchick, A.I.A., as a partner in the firm to be known as Irving G. Smith and George C. Kotchik, Architects. Offices are at 701 Portland Trust Bldg., Portland 4, Ore.

• Voorhees Walker Smith & Smith is the firm name of a partnership formed to continue the practice of architecture and engineering as successor to the former firm of Voorhees Walker Foley & Smith, following the retirement of Max H. Foley. Partners of the firm, which is located at 101 Park Ave., New York 17, N. Y., are Stephen F. Voorhees, Ralph T. Walker, Perry Coke Smith and Benjamin Lane Smith. The new firm also announced the association of Maurice Gauthier, Joseph L. Hautman, Harry Taylor Gherardi, Charles L. Macchi, Charles Haines, Carlton P. Roberts and Frank J. Roorda as junior partners, and of James J. Buckridge, as comptroller.

• Weiler and Strang and Associates have named Roger E. McMullin, James P. Sampson and Nathaniel W. Sample as associates in the firm. Offices are at 114 N. Carroll St., Madison 3, Wis.

New Addresses

Donald A. Becker, Architect, 1 W. Main St., Smithtown, N. Y.

C. Einar Carlson, Architect, c/o A. E. Anderson, Architect, 6 Young St. N., Chilliwack, B. C., Canada.

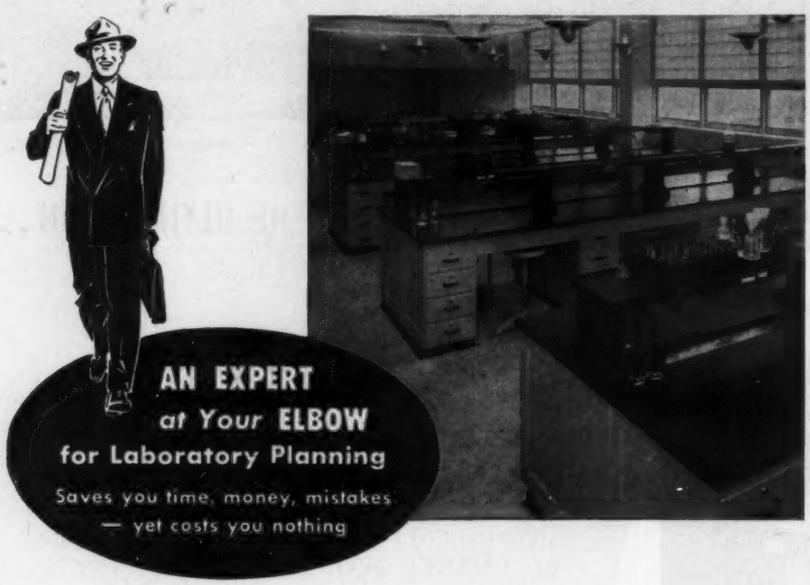
Joseph Norman Hettel and Wm. Kendall Albert, Architects, 4101 Marlton Ave., Pennsauken, N. J.

Peter Kump, A.I.A., 530 Santa Cruz Ave., Menlo Park, Calif.

Lorimer Rich and Associates, Architects, 35 W. 53rd St., New York 19, N. Y.

Edward D. Stone, Architect, 290 Park Ave., New York, N. Y.

(*More news on page 316*)



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. . . THAT LET YOU SEE

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(*Continued from page 314*)

TOWN AND COUNTRY PLANNING, October 1954. The monthly journal of Great Britain's Town and Country Planning Association celebrated its fiftieth year of publication in this issue. The magazine, originally the official voice of the Garden City Association, took the opportunity to review not only its own accomplishments, but to take a look at British town planning developments as reflected through 50 years in its pages, from which the quotes below were excerpted.

Ralph Neville, in the first issue: "The consideration of existing conditions points irresistably to the conclusion that there is only one remedy — the redistribution of the people upon the land. This can be accomplished only by the distribution of industries."

Patrick Geddes on suburbs, in August 1906: "Despite all the faults of conception and execution, which even their denizens are coming to see so plainly, in these 'eligible residences,' these 'bijou villas' . . . these once appreciating properties of a then governing class did pioneer, and do still for practical purposes almost alone represent, those two essential and fundamental advances upon the previous and the prevalent town conditions towards which whole working populations will next be striving: to wit, moderate population per acre, with ample outdoor playing space, and garden interests for every home."



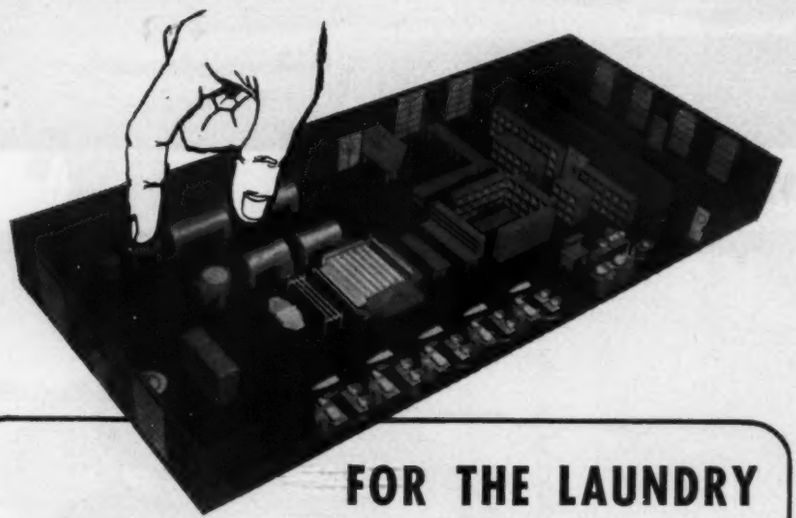
One of the early private houses at Letchworth, the first garden city, founded by Ebenezer Howard in 1903

Ebenezer Howard, in March 1907: "With reference to the agricultural belt I quite feel that (for some reasons) it would have been better if this belt could have been kept absolutely intact. . . . Personally I felt a little hurt at my 'scientific frontier' being thus encroached upon but I felt it was Nature and not man that snapped her sharp teeth and was unkind to my plan."

Planner Raymond Unwin in February 1907: "In the building of a city or a suburb the elements of beauty must be given a place of first importance if success is to be attained; to regard beauty as a mere superfluous trimming, desirable no doubt, if attainable at very low cost, but not sufficiently important to justify any sacrifice being made for it, is to miss the complete grasp of the problem."

G. K. Chesterton wrote encouragingly in January 1905: "I am pleased to be able to assure the members of this Association that you are detested. . . . When I began to hear about the Garden City there was an ominous and dangerous air of agreement on the subject. I am perfectly serious when I say that nothing could conceivably be imagined more fatal to any proposal than that everybody should agree with it."

(*Continued on page 318*)



FOR THE LAUNDRY

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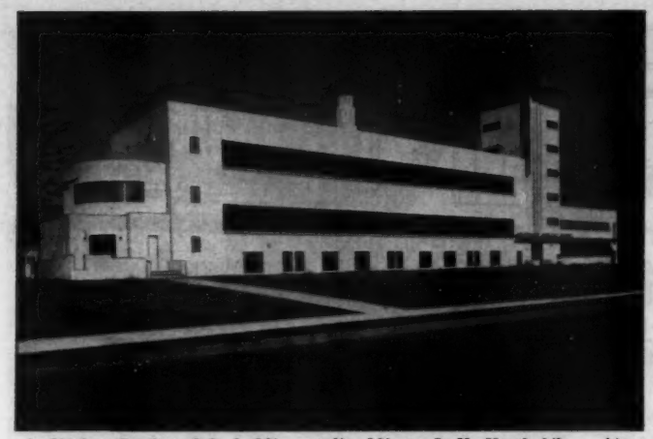
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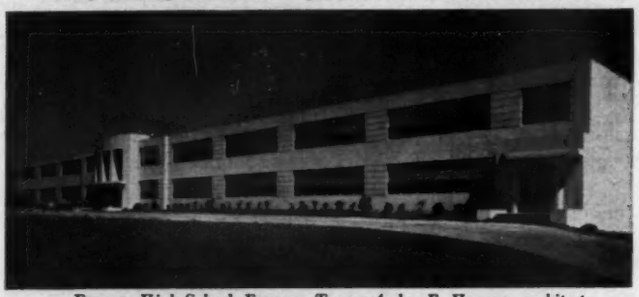
ATTENTION MR. _____



Archbishop Dowling School, Minneapolis, Minn.; J. V. Vanderbilt, architect



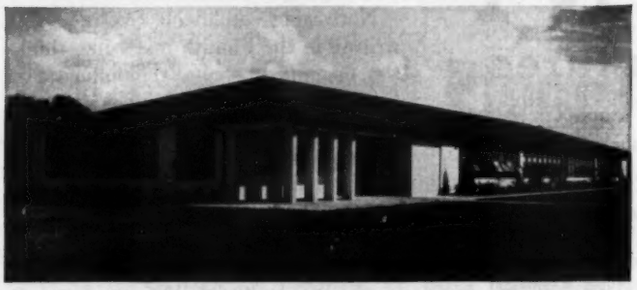
Lower Columbia Junior College, Longview, Wash.; Wolff & Phillips, architects



Frayser High School, Frayser, Tenn.; Anker F. Hansen, architect



Theodore Roosevelt School, Williamsport, Pa.; D. H. Grootenboer, architect



South Downs Elementary School, Baton Rouge, La.; Bodman & Murrell, architects



Southern High School, Okolona, Ky.; Haristern, Louis & Henry, architects

Build Better, Safer Schools with Architectural Concrete

These photos show the possibilities architectural concrete offers the architect in designing schools of any size or type. This versatile structural material has great strength, provides maximum protection for students and teachers against violent storms, quakes, explosions, atomic blasts and fire.

Architectural concrete also offers architects greater freedom in translating the ideas and wishes of school board members, teachers and parents into functional and attractive structures, combining beauty with overall durability and economy.

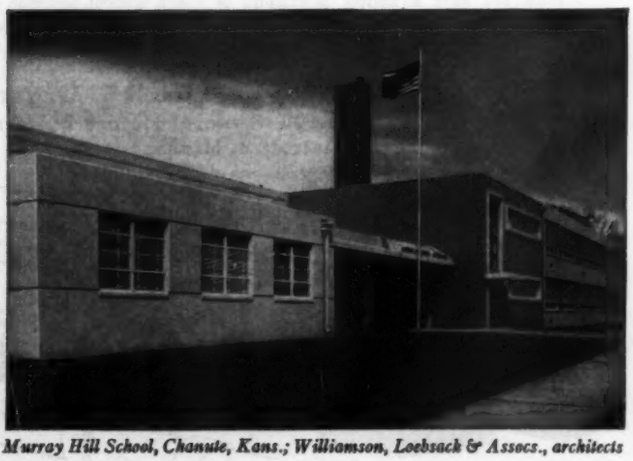
Schools in architectural concrete are moderate in first cost, require little maintenance and give years of long service. Result: ***low annual cost.***

For more information on architectural concrete schools, write for a free copy of "Concrete in Schools," distributed only in the U.S. and Canada.

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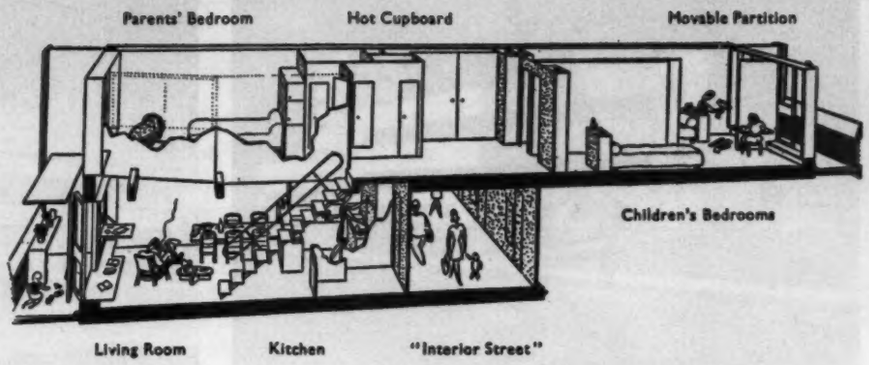


Murray Hill School, Chanute, Kans.; Williamson, Loebsack & Assocs., architects

RECENT PERIODICALS

(*Continued from page 316*)

THE ARCHITECTS' JOURNAL, December 2 and 23, 1954, and **ARKKITEHTI ARKITEKTEN,** September 1954: Both magazines reported Le Corbusier's most recent essay into apartment design: L'Unité d'habitation de Nantes-Rezé. Smaller than the Marseilles Unité, the 17-story building contains 294 apartments, mostly three-bedroom duplexes. With the exception of a nursery on the roof, it has none of the community services included in the Marseille development. E. Freyssinet was the engineer.



Above: a section of typical apartment in Corbu's Nantes Unité. Below: detail of reinforced concrete column



Norwegian architect Sverre Fehn, writing in the Finnish magazine, thinks the apartment shows the influence of Corbu's work in Chandigarh, while the English *Journal* comments: "The abiding impression this building leaves is not that it is the consummation of a Master Mind, or a noble and impressive contribution to the Twentieth Century, but rather that here is something which is eminently sensible, far from outrageous, not even particularly experimental."

(*Continued on page 320*)



"Yuh got me! All I did was tell Chadwick we're putting in a Monoxivent system!"



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5-105 General Motors Building
Detroit 2, Michigan



This progress photo shows a portion of the 38-acre assembly plant. The completed structure will also include administrative offices, employees' facilities, a garage, and plant services. General contractor for the project was Fred J. Brotherton, Inc., of Hackensack, N. J.

Giant Ford Plant Erected in 78 Days

Here's one of the speediest jobs of steel erection you're likely to hear about. It's Ford Motor Company's tremendous new plant at Mahwah, N.J., biggest of all the Ford assembly plants.

Starting on February 11, 1954, Bethlehem crews began setting steel for the simple column-and-truss frame as it arrived by rail from the fabricating works in Pottstown, Pa. Close on the heels of the erection gangs came the bolting crews. Working far faster than would be possible with rivets, they set nearly 250,000 bolts, including about 150,000 high-strength bolts. Thanks to speedy bolting, and to a carefully planned and executed job schedule, the 9,600-ton steel framework was completely raised by May 19, completely bolted by May 28—just 78 working days after the job began!

An interesting sidelight is the fact that, at about the same time that Bethlehem Steel Company was working on the Mahwah plant, erection crews of Bethlehem Pacific were constructing another large Ford assembly plant at Milpitas, Calif., near San Francisco. The use of high-strength bolts enabled the crews to erect the 7,650-ton steel skeleton at the rate of two acres a week.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

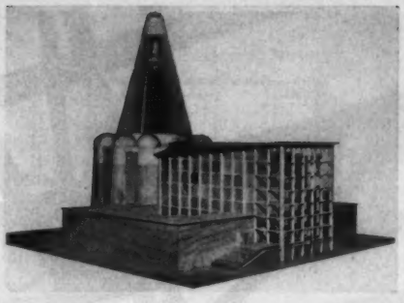
BETHLEHEM STEEL

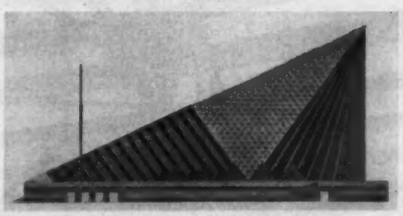
BETHLEHEM STEEL

RECENT PERIODICALS

(*Continued from page 318*)

REVISTA NACIONAL DE ARQUITECTURA, July–August 1954. This issue of the Spanish architectural journal carried a report on an international competition held for a new cathedral in San Salvador. The first prize was awarded to the entry of Dominikus Boehm, architect of Cologne, Germany; his project (shown at right, above) will be built. The magazine reviewed at some length the Spanish entries in the competition, including a design by Rafael Aburto (center) for an earthquake-resistant structure of reinforced concrete and stained glass. A less daring solution (bottom) by architects Ramon Anibal Alvarez and Manuel Martinez Chumillas was also discussed.



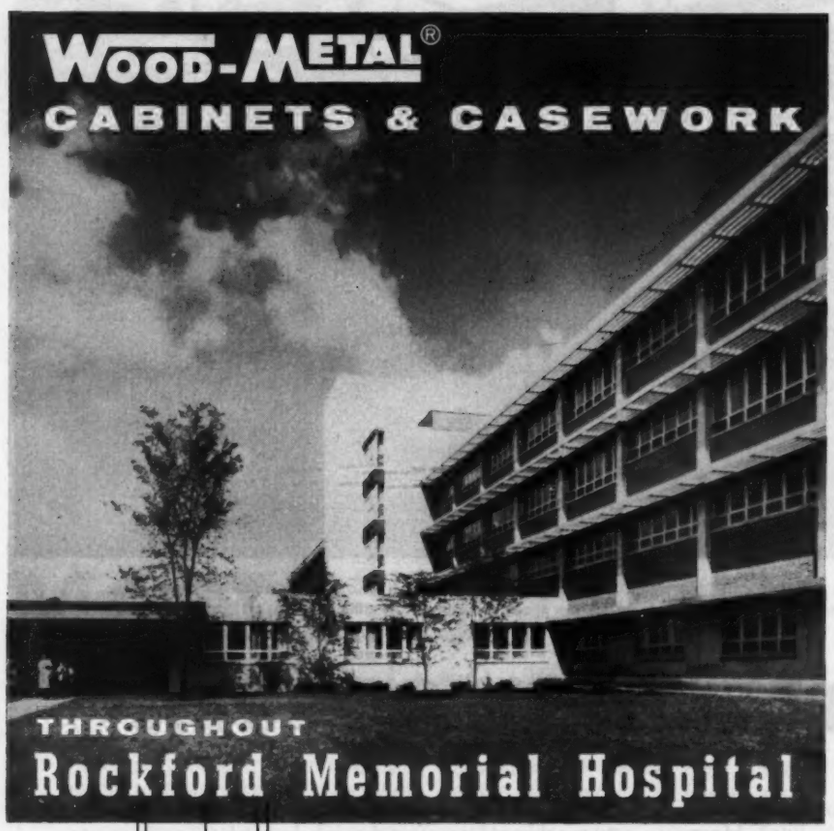


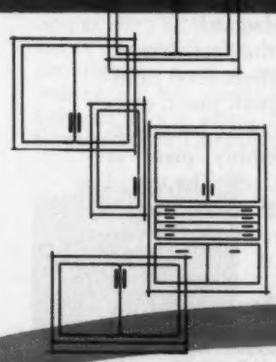


SCHEDARIO DI ARCHITETTURA. An illustrated bibliographical index of town planning, architecture, interior design and technical material published in European and American professional magazines recently issued its first four volumes. These cover material published from 1951 to March 1954. The index is published at Via Reggio Emilia, 32, Rome.

ARCHITECTURAL DESIGN, January 1955. "The New Brutalism," a recent "movement" which has received some attention in the British architectural press, is defined in this issue by its "prophets," architects Alison and Peter Smithson: "It is a reverence for materials — a realization of the affinity which can be established between building and man — which is at the root of the so-called New Brutalism. . . . This particular handling of Materials, not in the craft sense of Frank Lloyd Wright but in intellectual appraisal has been ever present in the Modern Movement. . . . What is new about the New Brutalism among Movements is that it finds its closest affinities, not in a past architectural style, but in peasant dwelling forms. It has nothing to do with craft. We see architecture as the direct result of a way of life."

(*More news on page 322*)





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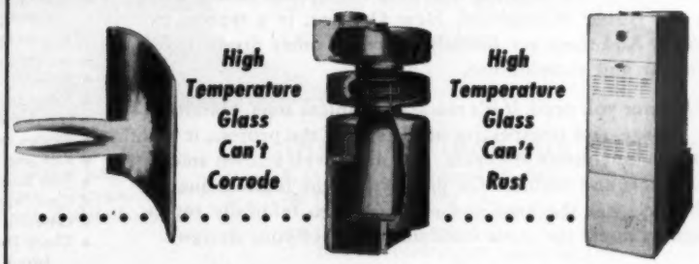
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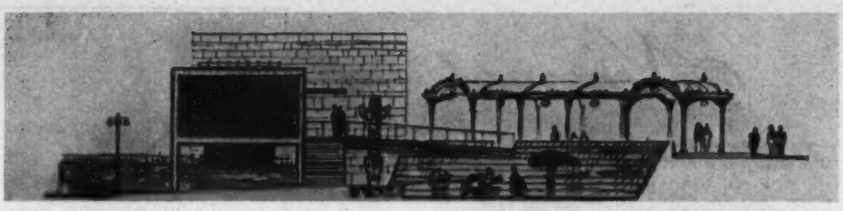
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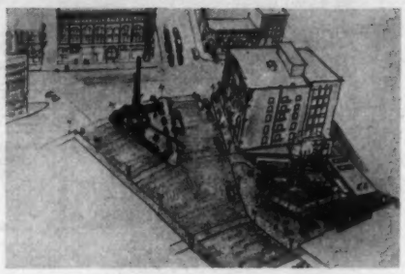
(*Continued from page 320*)

LANDMARKS PRESERVED IN REMODELED SQUARE

A project for the renovation of Seattle's Pioneer Square has been designed by architect Victor Steinbrueck, whose entry won the city's competition.

The chief requirement laid down by the city for a design was the preservation of a totem pole and Chief Seattle's Watering Trough, both regarded as landmarks. It was left to the designer to decide whether or not an iron pergola already on the square should also be preserved. In addition, the city's program called for a museum on a site now occupied by a block of stores.





Above: a bridge passes over the sunken court to connect museum and pergola; high stone wall in back will be used for display background. Right: entire area will be paved with cobblestone to achieve visual unity

The prize-winning solution involves the re-siting of the pergola, which will serve as an entrance to the museum. The totem pole will be mounted on a steel column, and will be backed by two lesser totems. The large totem will face west to catch the most flattering light and to present its face to the square.

The plan takes advantage of a grade variation on the museum site to provide a sunken court for outside display.

Mr. Steinbrueck was awarded $300 and the commission for his entry; a $50 second prize went to the team of architects John Ridley and Carl Gould and designer Robert Fansler. The competition was sponsored by the Junior Chamber of Commerce in cooperation with the Park Department, the Pioneer Place Business Men's Association and the Seattle Chapter of the American Institute of Architects.



Pioneer Square as it is today: the stores at the right will be razed to make way for the projected museum

(*More news on page 326*)

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Michaels produces aluminum, stainless steel and bronze products for the building industry. The bronze railing used in the Huber Mausoleum, New Orleans, is a typical example. And there are literally scores of other products for interior and exterior use.

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- Kick and Push Plates
- Push Bars
- Cast Thresholds
- Lettering
- Check Desks (standing and wall)
- Lamp Standards
- Marquees
- Tablets and Signs
- Extruded Thresholds
- MI-CO Parking Meters
- Museum Trophy Cases
- Inurnment Urns
- Stair Railings

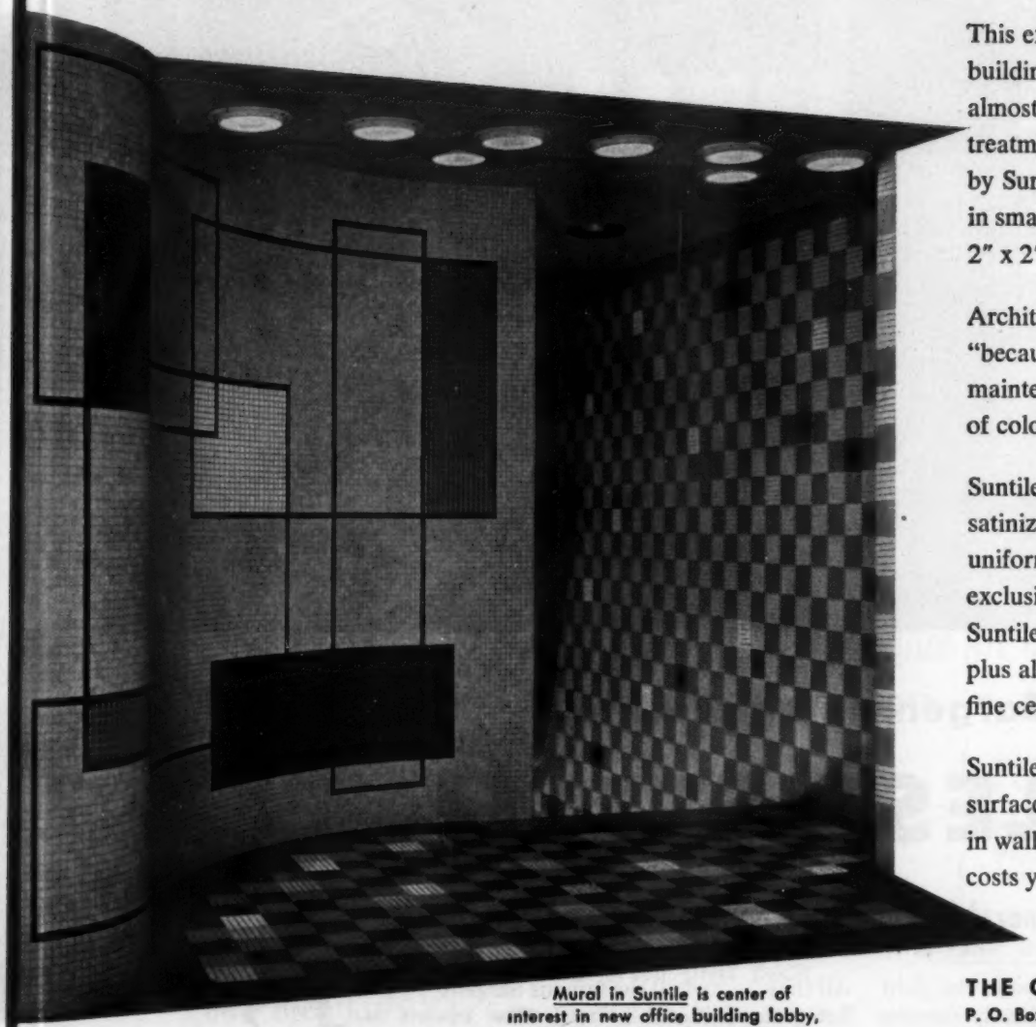
Literature on any or all Michaels products will be sent on request.

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bold pattern in Suntile ceramics GIVES AN OLD LOBBY new life



Mural in Suntile is center of interest in new office building lobby, 1201 N. Dearborn Street, Chicago, Illinois. Alper & Alper, Architects.

This exciting remodelling of an old office building lobby is just one example of the almost unlimited variety of decorative treatments made available to designers by Suntile Ceramics—durable ceramic tile in smaller sizes (½" x ½", 1" x 1", 1" x 2", 2" x 2").

Architect Max Alper selected this material "because of its permanence, ease of maintenance, flexibility, range and depth of color, and design possibilities."

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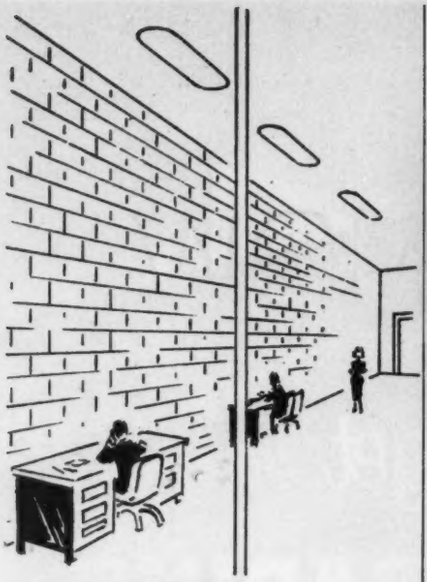


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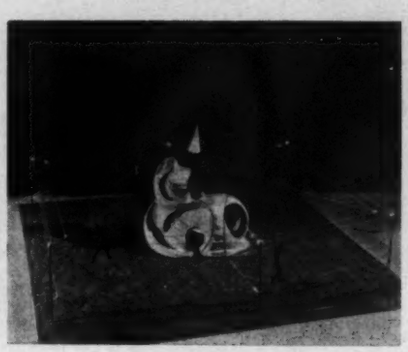
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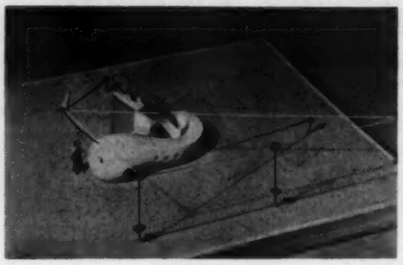
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THE RECORD REPORTS

(*Continued from page 322*)





Above: the prototype of Mr. Brown's "unpredictable" playground; small children can play inside form, but cannot reach cables. Below: variation of the prototype, "The Whale Yard"

TRAINING FOR MATURITY AIM OF PLAY EQUIPMENT

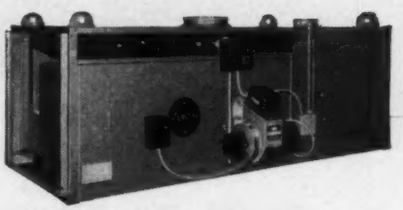
"Unpredictability" is the basic quality of the play equipment designed by Joseph Brown, associate professor of architecture at Princeton University and, perhaps significantly, a former boxer.

In a paper read at a recent meeting of the National Recreation Association, Mr. Brown outlined his point of view towards play: "Play is not just a safe way of getting rid of the children for a certain time, it is not just a way of developing children physically, nor just a way of developing better coordination, nor just a way of teaching children to entertain themselves. . . . Play is nature's way of preparing the child — or any young animal — for the struggles of maturity."

The result predicted for the play equipment by its designer is that "through experience [the child] is taught to respect the complexity of every situation even though his personal aims may be simple. This respect will be neither unreasonable fear nor a thoughtless sense of security — just an acceptance of the fact that personal designs and social designs are interdependent."

(*Continued on page 328*)

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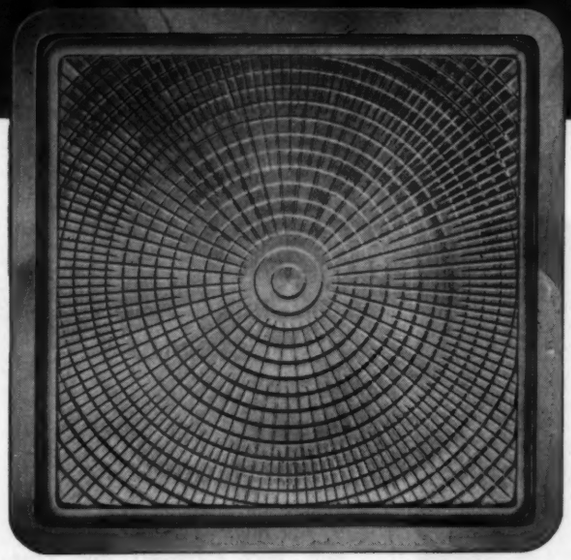
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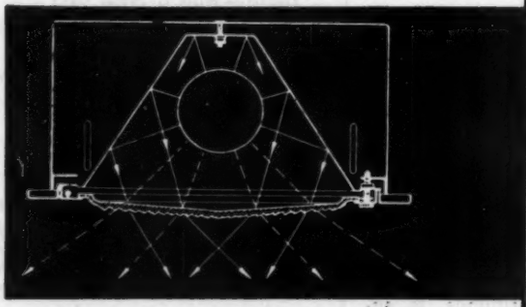




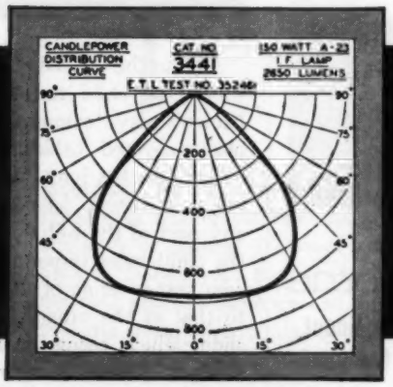
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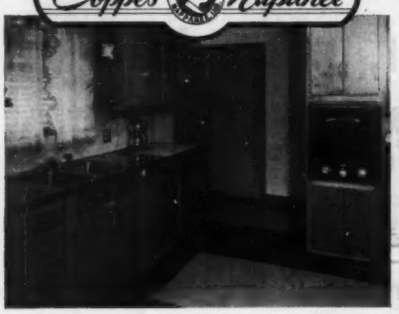
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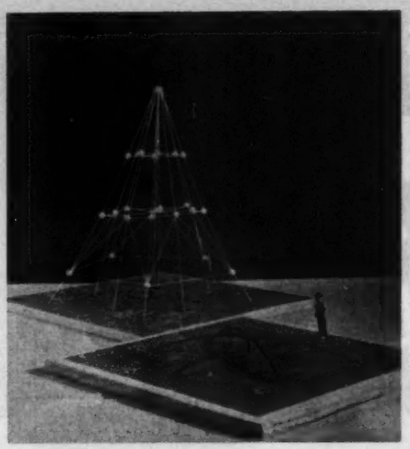
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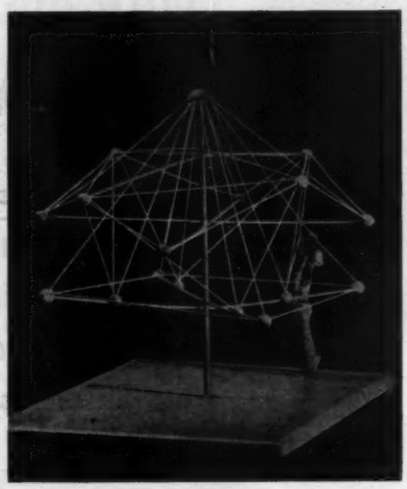
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THE RECORD REPORTS

(*Continued from page 326*)



Above: Climb-Mobile has low rigid cables for small children, high flexible ones for the older children; Jiggle Rail is three strips of spring steel. Below: Spring Tree

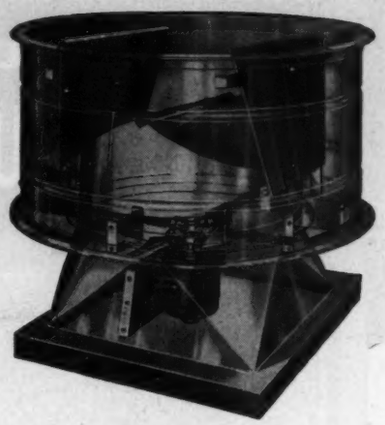


Among the unpredictable elements to which the child must adjust in Mr. Brown's play "community" is a web of plastic-covered cables mounted on a ball-and-socket joint so that the cables move whenever tension is applied to any part of the web — this means that the child must respond not only to his own maneuvering of the wires, but also to that of the other children. A spiral slide, which seems continuous, is actually a "planned temporary disappointment": it flattens out half-way down, giving the child the choice of pushing himself forward to the next slide or of standing up and climbing down the outside of the form.

Plans have been made to manufacture the new equipment, and Philadelphia has already ordered the construction of a "Whale Yard."

(*More news on page 332*)

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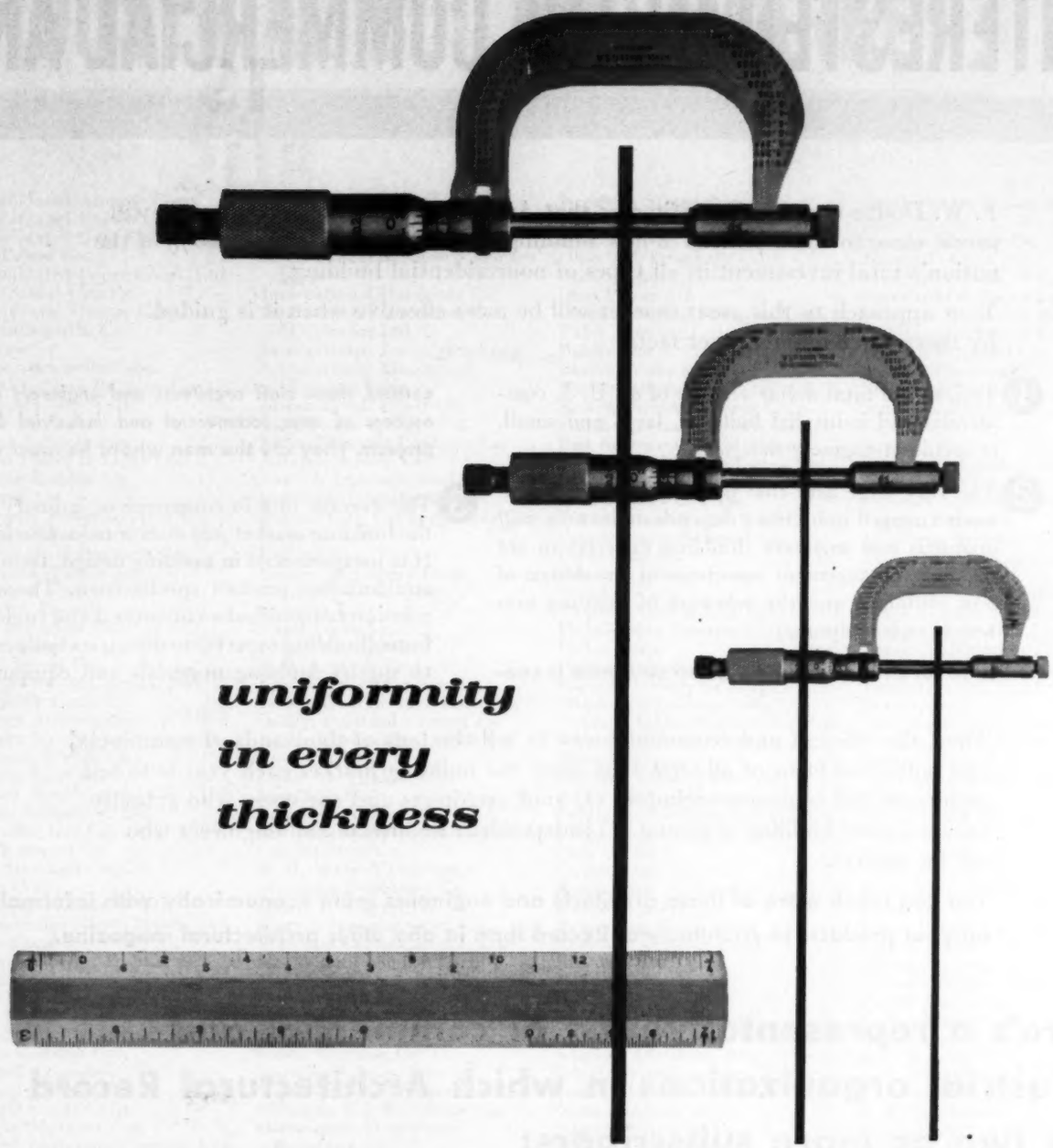
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   In so far as the building product salesman is concerned, *these staff architects and engineers are the owners of new commercial and industrial building projects.* They are the men whom he must sell.

3. The average firm in commerce or industry enters the building market *just once or twice in a lifetime.* It is inexperienced in building design, technology, and building product specification. Therefore it relies on *independent* architectural and engineering firms (building experts) to design its buildings and to specify building materials and equipment.

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THE RECORD REPORTS

(*Continued from page 330*)

PUBLIC FACILITY LOANS HELD FOR SMALL CITIES

The Community Facilities and special Operations division of the Housing and Home Finance Agency has decided to limit consideration of first applications under the public facilities loan program to those from cities of 25,000 population or less.

Cut drastically in its appropriations for this specific program, the division decided to extend preference to small applicants by type of proposed public work in this order:

1. Water, sewer and sanitation projects.
2. Hospitals and other health facilities.
3. All other types.

At this point, HHFA will group the applications by type and extend further preference within each group on this basis:

a) Applicants showing defense-related needs and requiring a Public Law 139 grant to meet such need efficiently. (P. L. 139 is the defense housing and community facilities act which authorized grants for public works where needed to support defense installations.)

b) Applicants showing defense-related needs, but which will not require a P. L. 139 grant.

c) Applicants showing that prompt construction is needed to relieve serious unemployment or other adverse economic conditions.

d) All other applicants.

The HHFA division was given $2 million by Congress to run the program in fiscal 1955, the current year. This was out of an authorization of $50 billion which HHFA inherited from the Reconstruction Finance Corporation when RFC was liquidated.

HHFA plans to receive applications from all its field offices and assess the full national demand before selecting the preferred applications.

The agency told its field personnel: "If review shows that an otherwise eligible applicant has a population appreciably over 25,000 or requests a loan of more than $300,000, further consideration . . . should be deferred since it has not apparent chance of approval under the preference criteria." In such circumstances, the cities will be told that it would be desirable for them to continue their efforts to secure private financing.

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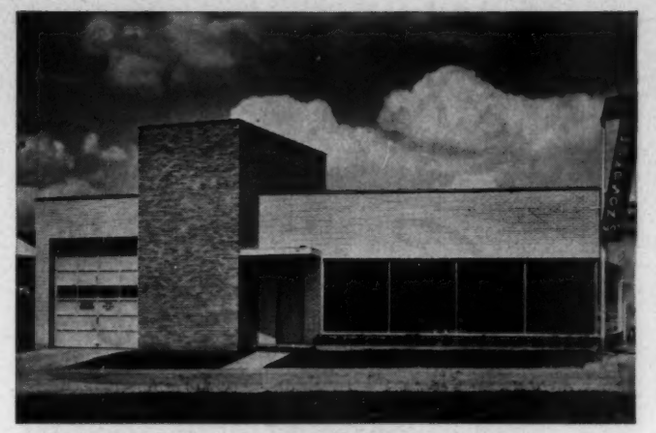
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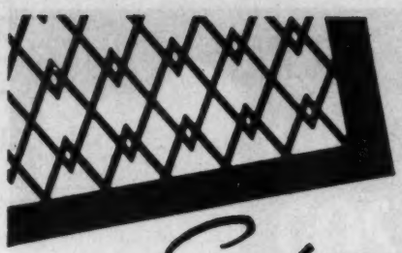
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Unitslide Folding Wall at Frank E. Campbell Funeral Home, NYC. View below shows narrow storage pocket at right of room. R. N. Leff, Architect.

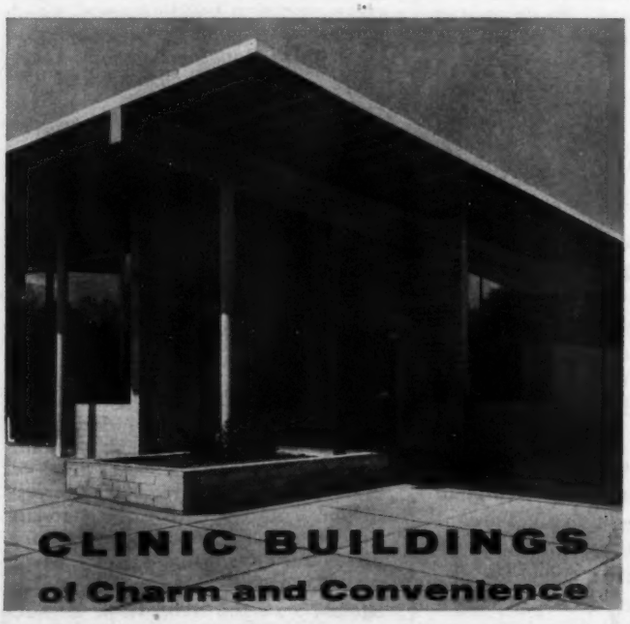


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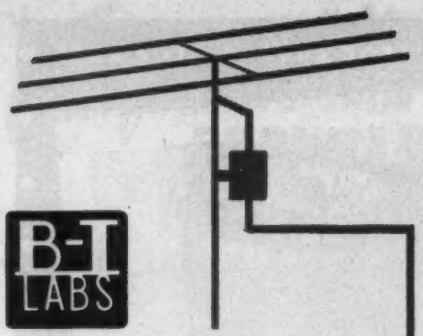
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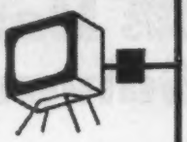
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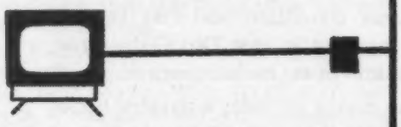
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REQUIRED READING

(Continued from page 48)

Johnson, as we can note other aspects of their design more directly in the Crystal Palace (Fig. 3.). In the massive tumult of Cockerell's columns, arches and rectangular panels we perhaps can now detect a continuity of effort which finds fresh expression today in Le Corbusier, another Hellenist, but of a twentieth-century order. In the Camdenians and Butterfield, with their philosophy of the "real," we find, by devious paths, the ancestors of Frank Lloyd Wright, whose early reading, as he himself tells us, was in their kind of criticism, as developed further by Ruskin. On the other hand, the sinuously arched and detailed iron structure of the Palm Stove at Kew (Fig. 1.) may still indicate possibilities for continuity in space and expression not yet fully exploited by the modern world.

Professor Hitchcock has produced a work which will probably prove to be as inexhaustible for future interpretations as is the period with which it deals.

A CRITICISM OF A ROMAN MONUMENT

The Arch of Constantine, the Decline of Form. By Bernard Berenson. MacMillan Co. (New York) 1954. 80 pp, illus.

By GEORGE A. CARVER Jr.

Mr. Carver is author of AESTHETICS AND THE PROBLEMS OF MEANING, Yale U. Press, 1952.

BERNARD BERENSON'S ARCH OF CONSTANTINE is primarily a monograph focused on a rather specific bit of technical analysis — that of interpreting the arch as the artistic symbol of the decline of Roman culture. In this he succeeds in convincing one that the Arch is a rather inferior piece of work by rather inferior artisans, decidedly less talented than their relatively immediate predecessors.

Generally speaking, Berenson's point is that form undergoes a distinct decline in the era of which he speaks, one which extends for some little time. He also urges that it is, in fact, decline in artistic merit, not simplification or return to primitive verities as it would be termed by those who, incapable of disciplining themselves or their work make a fetish of indiscipline — then he argues or strongly suggests that this artistic decline parallels and is in some sense symptomatic of a more general societal decay. Berenson, however, leaves it for

(Continued on page 340)

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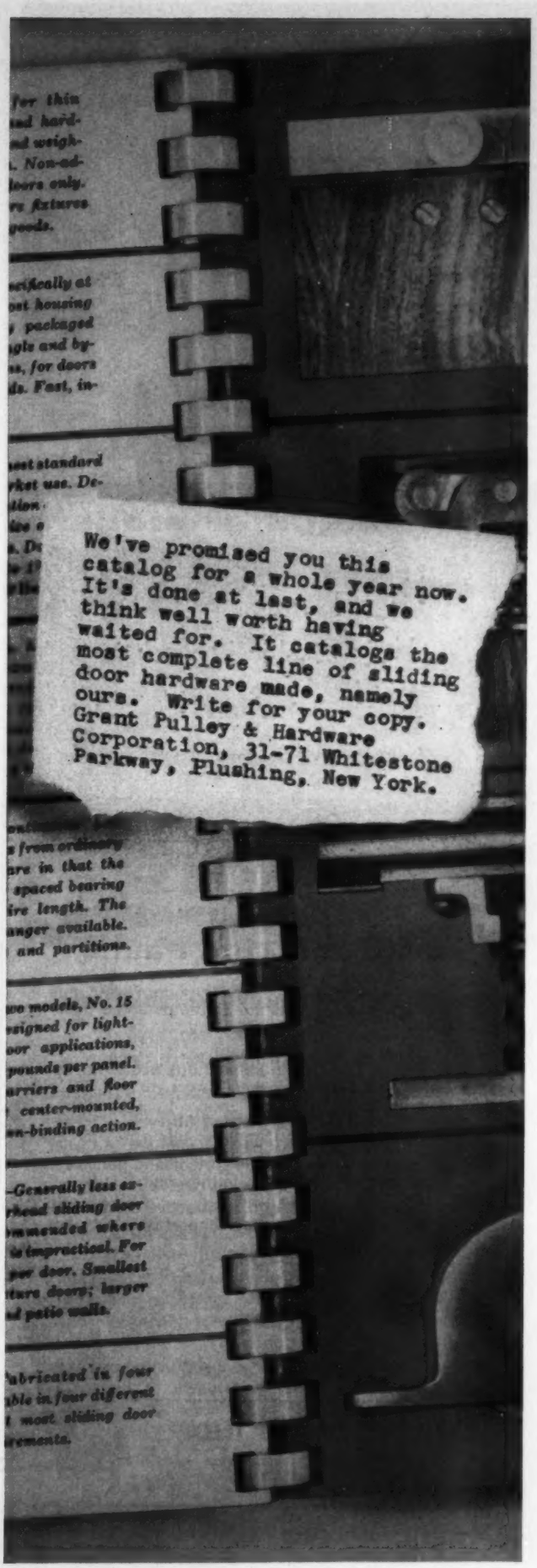
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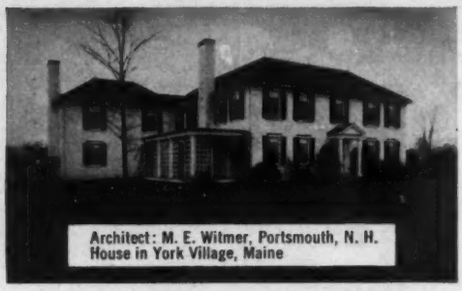
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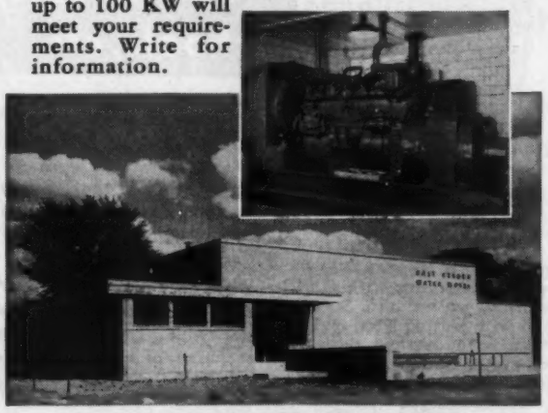
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Recreation Bldg. and Portico, Fairview Heights Park, Cincinnati, Ohio. Photo by Jerry Cornelius, Cincinnati Enquirer

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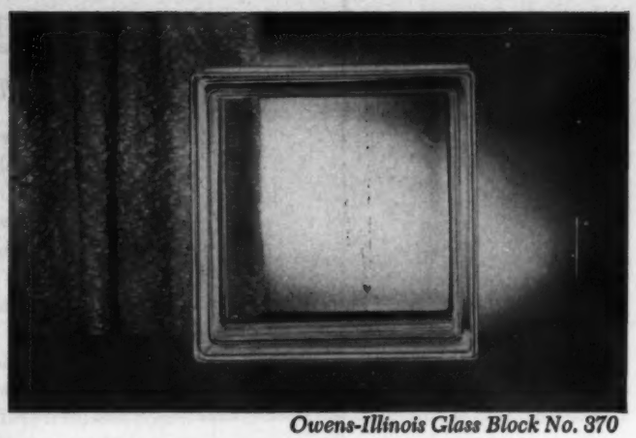
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REQUIRED READING

(*Continued from page 336*)

the reader to draw the wider ramifications. This particular bit of research is admirable though it is, in its own terms, too frail a reed on which to rest any very sweeping conclusions.

The most serious criticism of this book is the too brittle, too delicate, too self-consciously subtle style in which it is written. It is almost an overly well-phrased and mannered monograph onto which has been grafted, with more grace than skill, some fairly inflated arguments and some interesting digressions. Of these there appear to be a few irrelevant academic thrusts. There is also a discussion of fashion and style, the former being capable of individual initiation, the latter being more largely determined by some sort of *volksgeist* — at least so Berenson would have us think. Again this is a moot point not really substantiated by the decidedly ephemeral evidence advanced for that particular point.

Yet, in all honesty, one can be in considerable agreement with Berenson's conviction that much of the critical talk about intent and 'levels of meaning' is more the invention of the later (often centuries later) critic than the artist of any given work, and particularly the humble type of craftsman who helps build cathedrals or decorate monuments. "Scratch, daub, smear any which way and a critic will discover a deep meaning, a strange beauty, a revealing newness in what you have done," is a dryly trenchant remark with which there can be little dispute. R. P. W. ed.

PLANNING FOR MERCHANDISING

The Specialty Shop — A Guide. By Jose A. Fernandez. Architectural Book Publishing Co., Inc. (New York) 1955. Revised ed. 304 pp, illus. $12.50

Design for Modern Merchandising. An Architectural Record Book. F. W. Dodge Corp. (New York) 1954. 247 pp, illus. $8.95

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(*Continued on page 344*)

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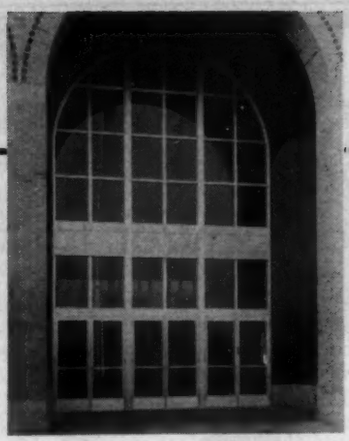
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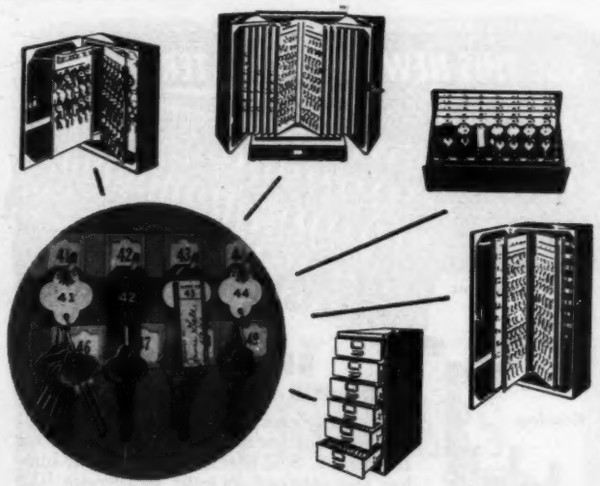
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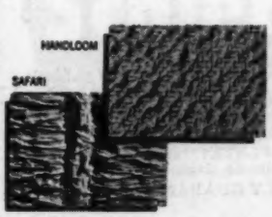
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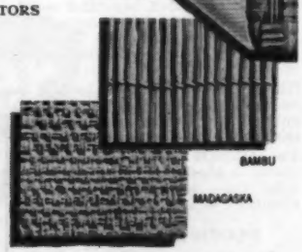
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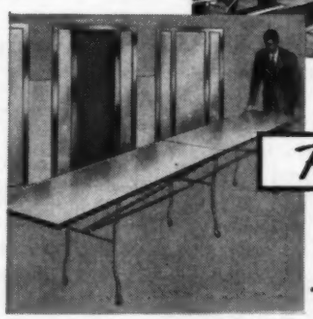
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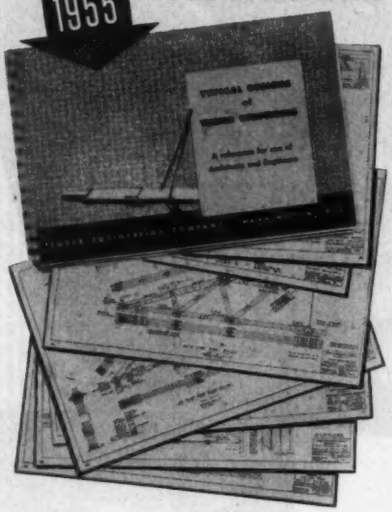
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(*Continued from page 340*)

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POPULATION TRENDS

The Determinants and Consequences of Population Trends. United Nations Publication (New York) 1953. 404 pp, illus.

This volume is intended to summarize the present state of knowledge and hypothesis concerning the factors affecting population trends and the influence of these trends upon economic and social conditions. Included is a summary of relevant literature from various parts of the world in demography, economics, sociology, geography, history and other related fields.

STORAGE SPACE

Storage. Interiors Library No. 4 — edited by George Nelson. Whitney Publications, Inc. (New York) 1954. 176 pp, illus. $12.50

Everyone needs more storage space. STORAGE presents new ideas for solving the problem — including shelves, room dividers, cabinets and closets, by designers and architects from the Americas and Europe. The book is well presented with descriptions by George Nelson and many excellent photographs.

OTHER BOOKS RECEIVED

The Grandeur That was Rome. By Giuseppe Gatteschi. Edited by Dr. G. Nicotra Di Leopoldo. Hastings House (New York) 1954. 126 pp, illus. $5.50

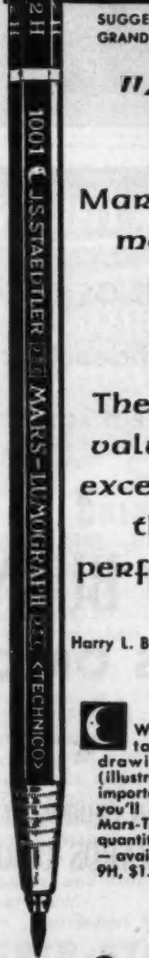
Giuseppe Gatteschi made reconstructions of ancient Roman monuments based on many years of research into the writings of classic authors and renaissance writers.

Cambridgeshire. By Nikolaus Pevsner. Penguin Books, Inc. (Baltimore, Md.) 1954. 440 pp, illus. $1.00

Another in the series of The Buildings of England by the noted British architectural historian.



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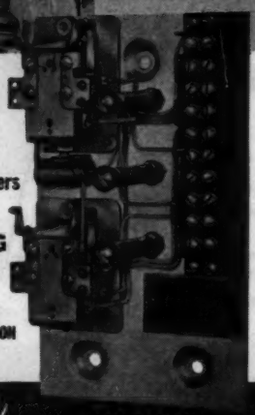
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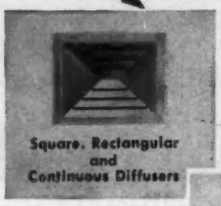


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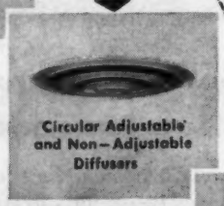
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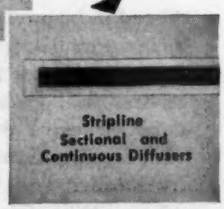
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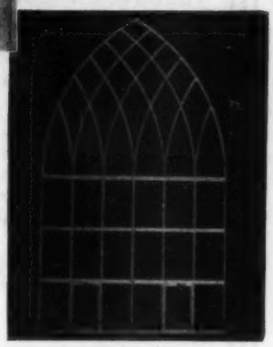
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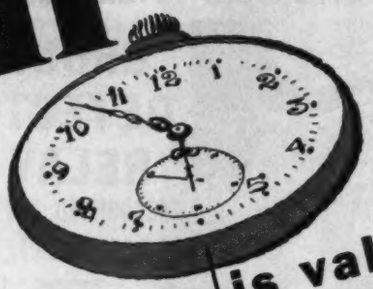
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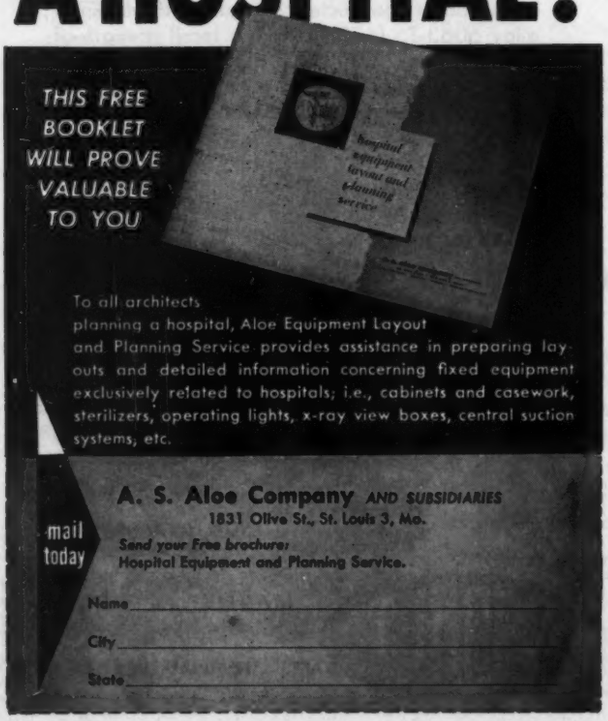
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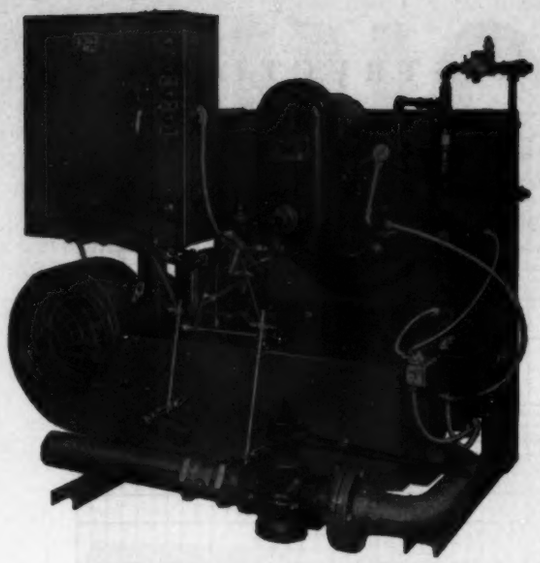


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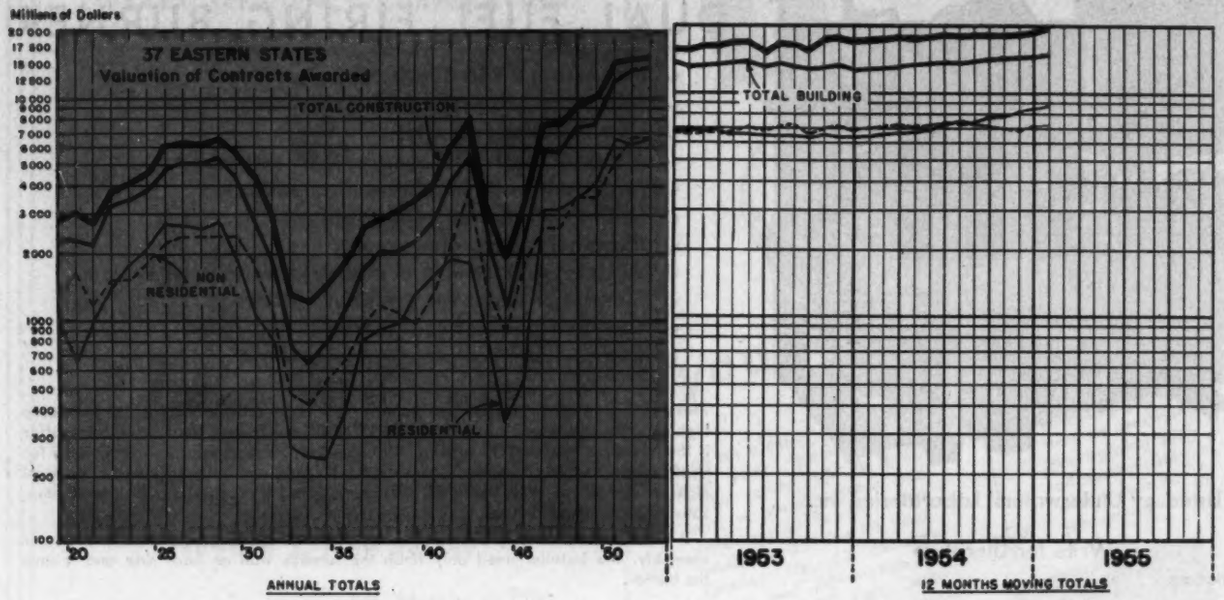
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CURRENT TRENDS IN CONSTRUCTION



1955 GETS OFF TO A BOOMING START

Charts by Dodge Statistical Research Service

As THE FIRST 1955 FIGURES ROLLED IN, construction was still setting records. In January, the dollar volume of construction contracts awarded in the 37 eastern states, as reported by F. W. Dodge Corporation, was $1,504,450,000, a new high for the month and a smashing 31 per cent ahead of the previous record January in 1954. Residential awards of $690,355,000, up 49 per cent over January 1954, continued to lead the field; they also continued to show the trend to single-family homes which became pronounced in the course of last year — two-family and multi-family structures showed a further drop. Nonresidential awards, at $564,788,000, also recorded a substantial increase, 19 per cent, over January 1954, reflecting rises in the hospital, commercial building, church, public building and social and recreational categories. Only manufacturing buildings showed a drop; school buildings remained about the same. Heavy engineering was up 15 per cent.

Source: F. W. Dodge Corporation

HOSPITAL AND INSTITUTIONAL BUILDINGS *

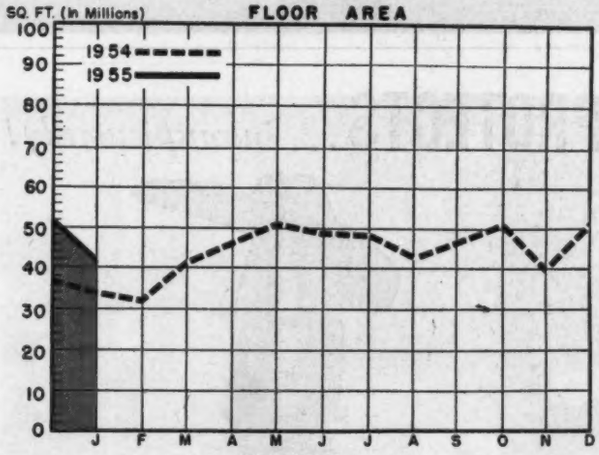
Contracts Awarded—Regional Comparison

(in thousands of dollars)

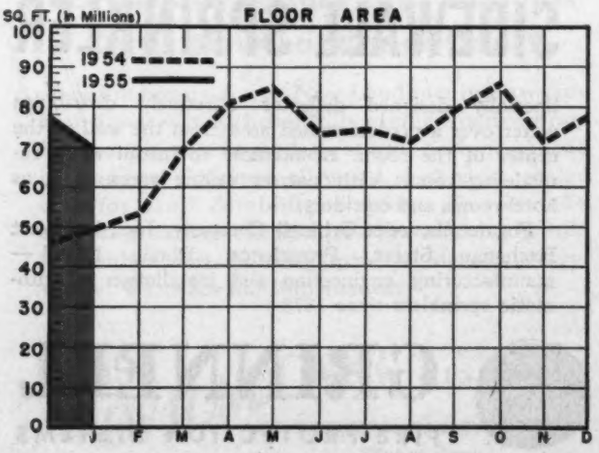
Region	Annual Total		Monthly Average	
	1946	1954	1946	1954
37 States	130,862	518,819	10,905	43,235
New England	13,189	56,471	1,099	4,706
Metro. N. Y.	8,982	41,921	748	3,493
Upstate N. Y.	4,880	23,886	407	1,990
Middle Atlantic	11,723	81,028	977	6,752
Southeastern	26,623	67,677	2,219	5,640
Pittsburgh	2,158	15,350	180	1,279
Cleveland	5,376	22,599	448	1,883
Cincinnati	6,672	13,624	556	1,135
Southern Mich.	7,324	16,645	610	1,387
Chicago	13,178	73,350	1,098	6,113
St. Louis	5,157	28,226	429	2,352
New Orleans	2,657	8,540	221	712
Minneapolis	8,336	20,234	695	1,686
Kansas City	8,455	22,530	705	1,878
Texas	6,152	26,738	513	2,228

* *Hospitals are the subject of Building Types Study No. 220, pages 177–208*

NONRESIDENTIAL BUILDING (37 EASTERN STATES)

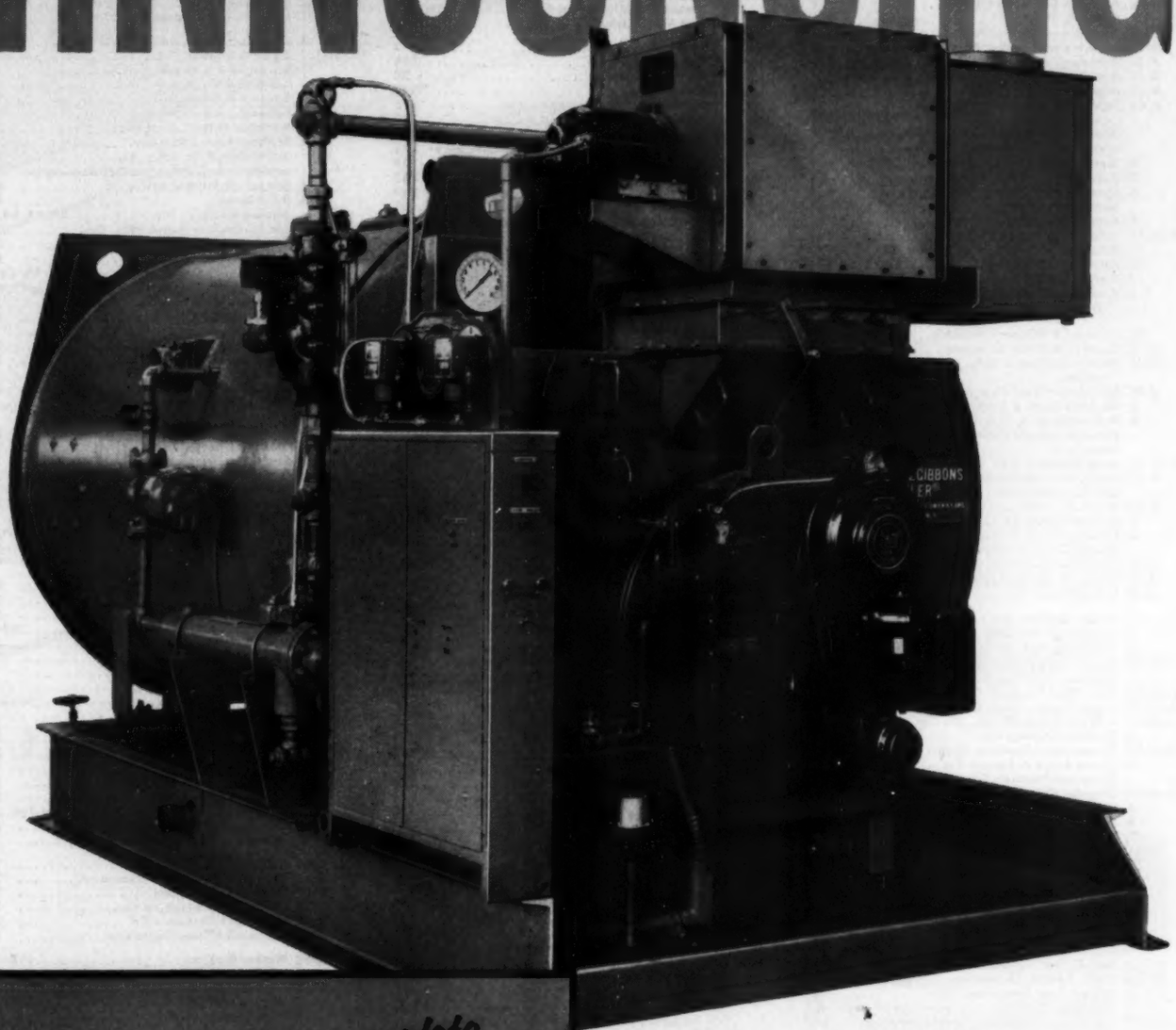


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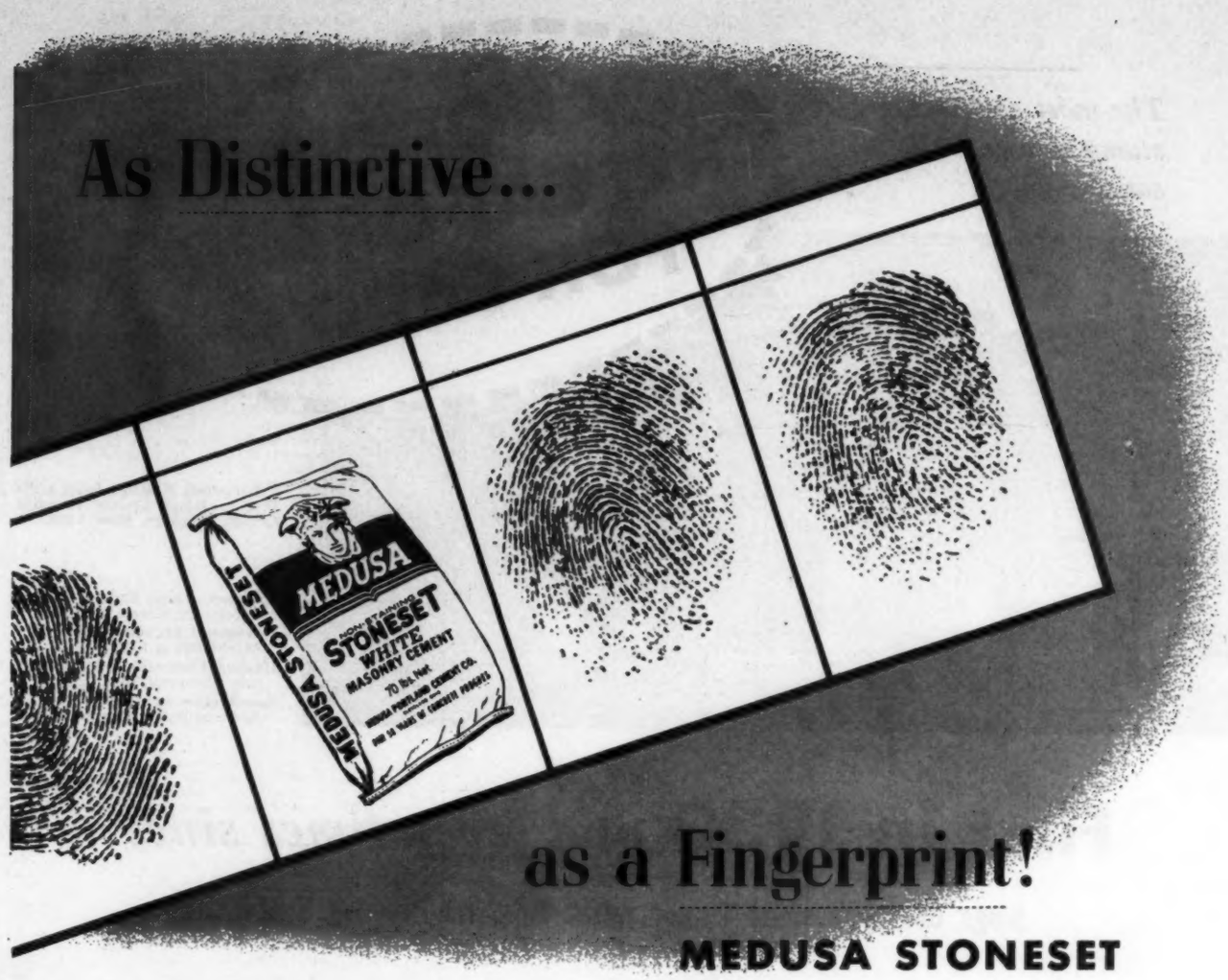
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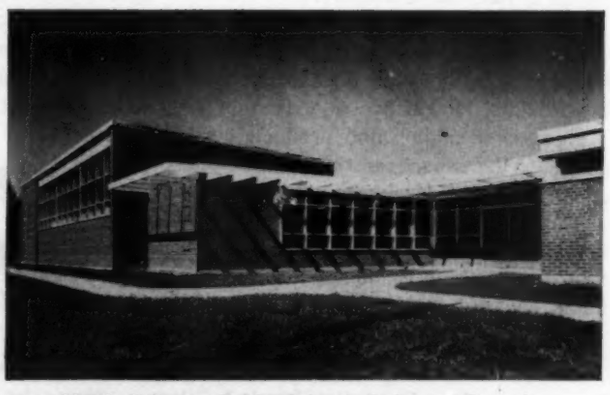


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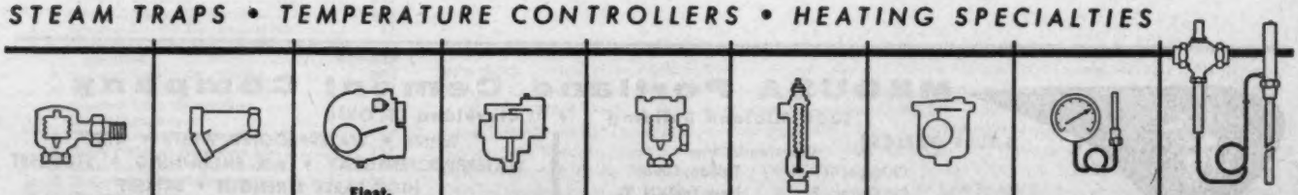
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